IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Asher GIL et al.

Application No.: 08/720,92

Filed: October 4, 1996

For: AUTOMATED SELF-SERVICE MAIL PROCESSING AND STORING SYSTEMS

Group Art Unit: 3629

Examiner: Dennis William Ruhl

Confirmation No.: 2200

DECLARATION OF JOHN B. DARON

PURSUANT TO 37 C.F.R. §1.131

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, John B. Daron, hereby declare and state the following:

1. I am a co-inventor of the subject matter claimed in the above-identified U.S. Patent Application Serial No. 08/720,927 ("the present application").

2. I am aware that the present application currently contains claims 1, 5-6, 8, 10, 13, 14, 16, 19 and 20-26 attached to this Declaration as Exhibit A.

3. The present application is based on, and claims priority to, U.S. Patent Application Serial Number 07/678,863 filed April 1, 2001 ("the '863 application"), The '863 application is directed to an automated self-service mail and package shipping unit and system.

4. I have been informed that the claims set forth in Exhibit A have been rejected based on the disclosure of U.S. Patent No. 5,313,404 to Wu ("the '404 patent;" Exhibit B), which was filed as application Serial Number 07/536,496 ("the '496 application;") on June 11, 1990.

5. Prior to June 11, 1990, I participated in efforts to develop automated mail processing machines collectively called the "Zipster."

6. The Zipster was designed to offer the public improved package and letter mailing and/or shipping services that would be available 24 hours a day, 7 days a week. The Zipster was designed to offer the same type of convenience offered by banks through the use of automated teller machines ("ATMs").

7. A prototype of the Zipster was operational prior to June 11, 1990.

8. A description of certain features and functionality of a pre-June 11, 1990 Zipster prototype is contained in the documents attached to this Declaration as Exhibit C and Exhibit D. The documents attached as Exhibits C and D have been redacted to remove date information.

9. In addition, the '863 application was drafted to cover certain features and functionality possessed by a pre-June 11, 1990 Zipster prototype.

10. I prepared a set of drawings used in the preparation of the '863 application that are representative of the construction and functionality of a pre-June 11, 1990 Zipster prototype, a copy of which are attached as Exhibit E. While at least some of the drawings in Exhibit E are dated after June 11, 1990, they are all representative of the pre-Jun 11, 1990 prototype. Page numbers have been added to the drawings appearing in Exhibit E.

11. A pre-June 11, 1990 Zipster prototype had all of the features recited in the claims contained in Exhibit A.

12. I detail below how the pre-June 11, 1990 Zipster prototype meets every limitation of the claims attached as Exhibit A.

13.

Claim Recitations	Claims in which they appear	Corresponding features in pre-June 11, 1990 Zipster prototype
A: A system for accepting and storing items for subsequent pickup by a commercial carrier B: An integrated, automated, unattended unit for collecting and securely holding items for collection and shipment by commercial delivery services, said automated unit comprising	A: 1, 13, 14, 20, 23, 24 B: 5, 10, 16, 19, 21, 22, 25	The Zipster prototype was an automated stand-alone unit designed for unattended use. The prototype securely received and processed letters or packages for subsequent retrieval and transportation by United States Postal Service or a private package shipment firm. Exhibit C: page 5 Exhibit D: pages 2, 4 Exhibit E: pages 1 and 6 (illustrating an integrated automated unit with secure storage areas)
C: an outer housing	C: 1. 20	The Zipster prototype had an outer housing. Exhibit E: page 1
D: means for weighing an item which a customer may intend to ship E: means for weighing the item to be shipped F: means for weighing an item which a customer may intend to ship, said weighing means being supported by said system;	D: 1, 13, 20, 23, 24, E: 5, 10, 16, 21, 22, 25 F: 14	The Zipster prototype included a means for weighing an item (e.g., a letter or package) to be shipped by a customer. The means for weighing was physically and operationally supported by the Zipster system. Exhibit C: page 5 Exhibit D: pages 2 and 4 Exhibit E: pages 2, 4, 5 and 12
G: means for inputting information relating to the destination of the item from a customer H: means for inputting information relating to the destination to which the item is to be shipped I: a keyboard or touch screen for inputting information relating to the destination of the item from a customer J: a keyboard or touch screen for inputting information relating to the destination to which the item is to be shipped	G: 1, 13, 14 H: 5, 10, 16, 19 I: 20, 23, 24 J: 21, 22, 25, 26	The Zipster prototype had a touch screen for the customer to input information relating to the destination of the article to be shipped. Exhibit C: page 5 Exhibit E: pages 1, 12 and 13

Claim Recitations	Claims in which they appear	Corresponding features in pre-June 11, 1990 Zipster prototype
K: control means for calculating charges comprising a shipment fee for the item, said control means being in communication with said weighing means and said information inputting means; L: control means for analyzing the inputted information and calculating a fee for shipment of the item M: control means for calculating charges comprising a shipment fee for the item, said control means being in communication with said weighing means and said keyboard or touchscreen	K: 1, 13, 14 L; 5, 10, 16, 19, 21, 22, 25 26 M: 20, 23, 24	The Zipster prototype had electronics, including a computer in communication with a scale, which would calculate the shipment fee based on the weight of the article being shipped, and on the particular shipping service(s) inputted or selected by the customer. Exhibit C: page 5 Exhibit D: pages 2 and 4 Exhibit E: pages 12 and 21-25
N: means in communication with said control means for accepting identification information relating to eventual payment from the customer, said means in communication with said control means comprising means for receiving and reading a credit card O: said control means further including means for receiving credit card information P: means for communicating and assessing the shipment fee to an account of a person Q: means in communication with said control means for accepting identification information relating to eventual payment from the customer R: means for receiving credit card information S: means in communication with said control means for accepting identification information relating to eventual payment from the customer T: means for receiving said credit card information comprises a magnetic card reader	N: 1, 20, O: 5 P: 10, 16, 19, 22, 25, 26 Q: 13, 14 R: 21 S: 23, 24 T: 8	The Zipster prototype included a magnetic card reader in communication with the computer and a modem, and was configured to operate and accept payment by means of a credit card or "ZIP*CARD." Exhibit C: page 7 Exhibit D: page 4 Exhibit E: pages 12-14

Claim Recitations	Claims in which they appear	Corresponding features in pre-June 11, 1990 Zipster prototype
U: means for communicating the charges to a central location for billing the charges to said customer **V**: means for communicating and assessing the shipment fee to the account of the person owning the credit card **W**: means for communicating the charges to a central location for billing the charges to the customer **X**: means for communicating the shipment fee comprising telephone lines	**U**: 1, 13, 14 **V**: 5, 21 **W**: 14, 20, 23, 24 **X**: 5, 10, 19, 20, 21, 22	The Zipster prototype included a magnetic card reader in communication with the computer and a modem, and was configured to operate and accept payment by means of a credit card or "ZIP*CARD," and further included a modem and was configured for connection to telephone lines. Exhibit C: page 7 Exhibit D: page 4 Exhibit E: pages 12-14
Y: a storage area defined by said outer housing comprising secure deposit means for permitting a customer to securely deposit the item into the storage area, said secure deposit means including a first zone which serves as a holding space and a secure zone into which the item is moved for secure storage. **Z**: means for securely storing said item until the item is collected by said commercial delivery service **AA**: a storage area comprising secure deposit means for permitting a customer to securely deposit the item into the storage area, said secure deposit means including a first zone which serves as a holding space and a secure zone into which the item is moved for secure storage and means for conveying said item from said holding space to said storage area **BB**: a storage area comprising secure deposit means for permitting a customer to securely deposit the item into the storage area, said secure deposit means including a first zone which serves as holding space and a secure zone into which the item is moved for secure storage	**Y**: 1, 20 **Z**: 5, 10, 16, 19, 21, 22, 25, 26 **AA**: 13 **BB**: 14, 23, 24	The Zipster prototype had a secure storage area. The Zipster prototype was constructed to receive an article to be shipped within a first area or zone where the article could be processed for shipping (e.g., weighed, have postage printed on the article), after being processed, and the transaction approved, the article was then transferred to the secure storage area or second zone by a tilting mechanism (for packages) or by a feeding mechanism (letters). Exhibit E: pages 2 and 4-6
CC: means for storing the inputted information associated with said item disposed in said secured storage means **DD**: a memory for storing the inputted information associated with said item disposed in said secured storage means	**CC**: 5, 10, 16, 19 **DD**: 21, 22, 25, 26	The Zipster prototype had a memory that stored information associated with the transactions of the articles received for shipping or mailing. Exhibit C: page 6 and 10 Exhibit D: pages 2 and 4 Exhibit E: pages 12, 13 and 17

Claim Recitations	Claims in which they appear	Corresponding features in pre-June 11, 1990 Zipster prototype
EE: means including means for transmitting a manifest to a remote location **FF**: said information storage means including means for transmitting information that may be used to prepare a manifest to a remote location	**EE**: 10, 22, 26 **FF**: 19	The Zipster prototype had a memory, modem, and associated electronics and software that would permit remote transfer, or remote access to, a record of information associated with the transactions of the articles received for shipping or mailing Exhibit C: page 6 and 10 Exhibit D: pages 2 and 4 Exhibit E: pages 12-14 and 17
GG: means for printing a hard copy of the shipment fee for the customer	**GG**: 16	The Zipster prototype included a printer and was configured to print a receipt for the customer. Exhibit E: pages 2 and 4 Exhibit F: pages 1, 14, 18, 19 and 21-26
HH: means for printing a hard copy of a manifest	**HH**: 6	The Zipster prototype had a printer that could print a manifest or record of transactions. Exhibit C: pages 6 and 10 Exhibit D: pages 1 and 4 Exhibit E: pages 12 and 17

14. The activities referred to above in connection with the development and construction of a prototype are activities that occurred in the United States.

15. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: March 23 - 2007

Signature: _____

John B. Daron

EXHIBIT A - CURRENT CLAIMS IN 08/720,927

1. A system for accepting and storing items for subsequent pickup by a commercial carrier, comprising:

an outer housing;

means for weighing an item which a customer may intend to ship;

means for inputting information relating to the destination of the item from the customer;

control means for calculating charges comprising a shipment fee for the item, said control means being in communication with said weighing means and said information inputting means;

means in communication with said control means for accepting identification information relating to eventual payment from the customer, said means in communication with said control means comprising means for receiving and reading a credit card and means for communicating the charges to a central location for billing the charges to said customer;

a storage area defined by said outer housing comprising secure deposit means for permitting a customer to securely deposit the item into the storage area, said secure deposit means including a first zone which serves as a holding space and a secure zone into which the item is moved for secure storage.

5. An integrated, automated, unattended unit for collecting and securely holding items for collection and shipment by commercial delivery services, said automated unit comprising:

means for weighing the item to be shipped;

means for inputting information relating to the destination to which the item is to be shipped;

control means for analyzing the inputted information and calculating a fee for shipment of the item; said control means further including means for receiving credit card information and means for communicating and assessing the shipment fee to the account of the person owning the credit card, said means for communicating the shipment fee comprising telephone lines;

means for securely storing said item until the item is collected by said commercial delivery service; and

means for storing the inputted information associated with said item disposed in said secured storage means.

6. The integrated, automated, unattended unit of claim 5 including means for printing a hard copy of a manifest.

8. The integrated, automated, unattended unit of claim 5 wherein said means for receiving said credit card information comprises a magnetic card reader.

EXHIBIT A - CURRENT CLAIMS IN 08/720,927

10. An integrated, automated, unattended unit for collecting and securely holding items for collection and shipment by commercial delivery services; said automated unit comprising;

means for weighing the item to be shipped;

means for inputting information relating to the destination to which the item is to be shipped;

control means for analyzing the inputted information and calculating a fee for shipment of the item; said control means further includes means for communicating and assessing the shipment fee to an account of a person, said means for communicating the shipment fee comprising telephone lines; means for securely storing said item until the item is collected by said commercial delivery service; and

means for storing the inputted information associated with said item disposed in said secure storage means, said information storage means including means for transmitting a manifest to a remote location.

13. A system for accepting and storing items for subsequent pickup by a commercial carrier, comprising:

means for weighing an item which a customer may intend to ship;

means for inputting information relating to the destination of the item from the customer;

control means for calculating charges comprising a shipment fee for the item, said control means being in communication with said weighing means and said information inputting means;

means in communication with said control means for accepting identification information relating to eventual payment from the customer, and for communicating the charges information to a central location for billing the charges to said customer;

a storage area comprising secure deposit means for permitting a customer to securely deposit the item into the storage area, said secure deposit means including a first zone which serves as a holding space and a secure zone into which the item is moved for secure storage and means for conveying said item from said holding space to said storage area.

14. A system for accepting and storing items for subsequent pickup by a commercial carrier, comprising:

means for weighing an item which a customer may intend to ship, said weighing means being supported by said system;

means for inputting information relating to the destination of the item from the customer;

control means for calculating charges comprising a shipment fee for the item, said control means being in communication with said weighing means and said information inputting means;

EXHIBIT A - CURRENT CLAIMS IN 08/720,927

means in communication with said control means for accepting identification information relating to eventual payment from the customer, and for communicating the charges to a central location for billing the charges to said customer;

a storage area comprising secure deposit means for permitting a customer to securely deposit the item into the storage area, said secure deposit means including a first zone which serves as holding space and a secure zone into which the item is moved for secure storage.

16. An integrated, automated, unattended unit for collecting and securely holding items for collection and shipment by commercial delivery services; said automated unit comprising:

means for weighing the item to be shipped;

means for inputting information relating to the destination to which the item is to be shipped;

control means for analyzing the inputted information and calculating the fee for shipment of the item, said control means further including means for communicating and assessing the shipment fee to an account of a person, said means for communicating and assessing comprising means for printing a hard copy of said shipment fee for said person;

means for securely storing said item until the item is collected by said commercial delivery service; and

means for storing the inputted information associated with said item disposed in said secured storage means.

19. An integrated, automated, unattended unit for collecting and securely holding items for collection and shipment by commercial delivery services; said automated unit comprising;

means for inputting information relating to the destination to which the item is to be shipped;

control means for analyzing the inputted information and calculating the fee for shipment of the item, said control means further including means for communicating and assessing the shipment fee to an account of a person, said means for communicating the shipment fee comprising telephone lines;

means for securely storing said item until the item is collected by said commercial delivery service;

means for storing the inputted information associated with said item is disposed in said secured storage means, said information storage means including means for transmitting information that may be used to prepare a manifest to a remote location.

EXHIBIT A - CURRENT CLAIMS IN 08/720,927

20. A system for accepting and storing items for subsequent pickup by a commercial carrier, comprising:
an outer housing;
means for weighing an item which a customer may intend to ship;
a keyboard or touch screen for inputting information relating to the destination of the item from the customer;
control means for calculating charges comprising a shipment fee for the item, said control means being in communication with said weighing means and said keyboard or touch screen;
means in communication with said control means for accepting identification information relating to eventual payment from the customer, said means in communication with said control means comprising means for receiving and reading a credit card, and telephone lines connected to the means for receiving and reading a credit card for communicating the charges to a central location for billing the charges to said customer;
a storage area defined by said outer housing comprising secure deposit means for permitting a customer to securely deposit the item into the storage area, said secure deposit means including a first zone which serves as a holding space and a secure zone into which the item is moved for secure storage.

21. An integrated, automated, unattended unit for collecting and securely holding items for collection and shipment by commercial delivery services, said automated unit comprising:
means for weighing the item to be shipped;
a keyboard or touch screen for inputting information relating to the destination to which the item is to be shipped;
control means for analyzing the inputted information and calculating a fee for shipment of the item;
means for receiving credit card information;
means for communicating and assessing the shipment fee to the account of the person owning the credit card comprising telephone lines;
means for securely storing said item until the item is collected by said commercial delivery service; and
a memory for storing the inputted information associated with said item disposed in said secured storage means.

22. An integrated, automated, unattended unit for collecting and securely holding items for collection and shipment by commercial delivery services; said automated unit comprising;
means for weighing the item to be shipped;
a keyboard or touch screen for inputting information relating to the destination to which the item is to be shipped;

EXHIBIT A - CURRENT CLAIMS IN 08/720,927

control means for analyzing the inputted information and calculating a fee for shipment of the item;

means for communicating and assessing the shipment fee to an account of a person comprising telephone lines;

means for securely storing said item until the item is collected by said commercial delivery service; and

a memory for storing the inputted information associated with said item disposed in said secure storage means, and means for transmitting a manifest to a remote location.

23. A system for accepting and storing items for subsequent pickup by a commercial carrier, comprising:

means for weighing an item which a customer may intend to ship;

a keyboard or touch screen for inputting information relating to the destination of the item from the customer;

control means for calculating charges comprising a shipment fee for the item, said control means being in communication with said weighing means and said keyboard or touch screen;

means in communication with said control means for accepting identification information relating to eventual payment from the customer and for communicating the charges to a central location for billing the charges to said customer; and

a storage area comprising secure deposit means for permitting a customer to securely deposit the item into the storage area, said secure deposit means including a first zone which serves as a holding space and a secure zone into which the item is moved for secure storage and means for conveying said item from said holding space to said storage area.

24. A system for accepting and storing items for subsequent pickup by a commercial carrier, comprising:

means for weighing an item which a customer may intend to ship;

a keyboard or touch screen for inputting information relating to the destination of the item from the customer;

control means for calculating charges comprising a shipment fee for the item, said control means being in communication with said weighing means and said keyboard or touch screen;

means in communication with said control means for accepting identification information relating to eventual payment from the customer, and for communicating the charges to a central location for billing the charges to said customer; and

a storage area comprising secure deposit means for permitting a customer to securely deposit the item into the storage area, said secure deposit means including a first zone which serves as holding space and a secure zone into which the item is moved for secure storage.

EXHIBIT A - CURRENT CLAIMS IN 08/720,927

25. An integrated, automated, unattended unit for collecting and securely holding item for collection and shipment by commercial delivery services; said automated unit comprising,

means for weighing the item to be shipped;

a keyboard or touch screen for inputting information relating to the destination to which the item is to be shipped;

means for analyzing the inputted information and calculating a fee for shipment of the item;

means for communicating and assessing the shipment fee to an account of a person comprising means for printing a hard copy of said shipment fee for said person;

means for securely storing said item until the item is collected by said commercial delivery service; and

a memory for storing the inputted information associated with said item disposed in said secured storage means.

26. An integrated, automated, unattended unit for collecting and securely holding item for collection and shipment by commercial delivery services; said automated unit comprising:

a keyboard or touch screen for inputting information relating to the destination to which the item is to be shipped;

control means for analyzing the inputted information and calculating a fee for shipment of the item;

means for communicating and assessing the shipment fee to an account of a person comprising means for printing a hard copy of said shipment fee for said person;

means for securely storing said item until the item is collected by said commercial delivery service;

a memory for storing the inputted information associated with said item disposed in said secured storage means; and

means for transmitting the inputted information to a remote location.

Pi Electronics Corp.

THE ZIPSTER

An Integrated Computerized
Mailing System

CONFIDENTIAL

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Houston, Texas 77069
(713) 537-1196

O V E R V I E W

The Zipster is a family of integrated computerized mailing machines designed specifically to meet the needs of the USPS in implementing their program for automating the postal services.

The philosophy behind the Zipster is very simple:

PRINT ZIP+4 CODES IN BAR CODE FORM AT SOURCE

The Zipster will not only overcome the problems outlined in the Office of Technology Assessment (OTA), Review of Postal Automation Strategy , it will give the USPS the opportunity to improve their service to the public.

The USPS based their strategy for modernizing and automating the postal service on the implementation of ZIP+4 Codes. Original plans called for achieving a 90 percent ZIP+4 usage (among large business mailers) within 5 years. Unfortunately, the USPS has been unsuccessful in encouraging a significant number of mailers to change to the nine-digit code. The OTA Review points out that the USPS has had the ZIP+4 Directory available since , but that "very few mailers (59 as of late) have converted to ZIP+4".

There must be a change in strategy if the USPS wants to meet its target for ZIP+4 usage. Public support would give the USPS the chance to implement the system. If it can be proven that mail deliveries will be quicker and that postal rates will not increase, the public will not only support the use of ZIP+4 Codes--they will demand them!

One of the options mentioned in the OTA Review was the elimination of the ZIP+4 System entirely. This would be a major step backwards and should not even be considered. The ZIP+4 System is absolutely necessary if the USPS is to fully automate their mail delivery system.

Much of the problem in getting mailers to use ZIP+4 Codes is simply psychological--one more demand on them, one more thing to remember, one more thing to do. Even large companies are reluctant to convert to ZIP+4 Codes. There is a general feeling among mailers that ZIP+4 really doesn't do that much for them. The benefits are unseen and, therefore, not easily recognizable.

The question then is how to make mailers, both individuals and companies, feel that they are benefiting from the program. The answer is simple. BAR CODE EVERY LETTER.

The Post Office should lead the way in implementing the ZIP+4 system by using Zipsters to bar code letters at the retail level. Once mailers realize that ZIP+4 BAR CODED letters move faster through an automated sorting system the USPS will not have to "promote" ZIP+4 usage.

General usage by the public will lead to complete acceptance and usage by all business mailers.

The USPS should aim to have all mail--love letters, bills, advertisements, packages--ZIP+4 BAR CODED by 1990.

OUR PHILOSOPHY

We believe that BAR CODING AT SOURCE is the answer to the USPS automating needs. Bar coding eliminates the need for manual handling of letters and gives the USPS the opportunity to begin sorting operations at local sub-stations rather than centralized main stations.

Optical character readers (OCRs) depend on centralization of bar coding operations. Unfortunately, OCRs are limited and create a heavy burden on the USPS to do the enormous task of bar coding billions of letters in a relatively small number of locations. The rejection rate of OCRs results in manual sorting of a large number of pieces of mail each year.

Zipsters spread the task of bar coding to mailers and retail post office units. Actual time involved in bar coding is insignificant when spread over a large number of mailers, and requires no effort on the part of the mailer. Bar coding at source virtually eliminates the need for manual sorting at all levels of the sorting operation.

On the other hand, both single-line and multi-line OCRs place a burden on the mailer and the USPS.

Single-line OCRs require that the mailer print the numerical ZIP+4 Code on every letter. Large mailers would have to change mailing lists and maintain an on-going system to input ZIP+4 Codes for new listings. Few mailers have the facilities or the know-how to implement the system and the savings incentives are not large enough to warrant such changes.

Single-line OCRs currently used by the USPS have rejection rates of 30-40% for mail that has been specifically made to be machine readable.

Multi-line readers do not require the mailer to know or use ZIP+4 Codes. Instead, the object it to read the entire address and translate this by means of a computer program into a bar code form.

Multi-line OCRs which read 3-4 lines of the address will have 3-4 times the probability of rejection.

Neither the single-line nor multi-line reader will ever be able to read handwritten addresses.

In effect the option between a single-line and multi-line character reader is really a choice between "two evils".

Whatever developments that might take place in the development of OCRs they will always be limited in their ability to recognize printed characters. The OTA Review points out "that, at least for the US mail, it is yet difficult to improve on the information-carrying ability, readability, and cost effectiveness of printed characters on paper".

The USPS by now must be aware of the difficulty in dictating to US mailers the kind of envelopes to use, the type of fonts, the address location, etc.

Too many human factors are involved in making letters machine readable and all of them are the type for which the USPS has no control whatsoever.

The philosophy behind the Zipster is that the work should be shared by all mailers. With this philosophy in mind we have developed the integrated computerized mailing units to be used by the Post Office, the general public and by businesses. All Zipster will print the ZIP+4 Codes in bar code form at the time a letter is mailed. This will spread the task of coding 131 billion letters and will put the responsibility upon all mailers to assist the USPS.

The key to successfully implementing the ZIP+4 System is in giving mailers access to Zip+4 Codes "painlessly" and without any effort on their part. All the user must do is input the address. The Zipster will then find the ZIP+4 Code and print it in both bar code and numeric form. The numeric form is unnecessary, but will accustom the public to its usage and make them aware of the extra four numbers involved.

Zipsters have been designed for a broad range of users:

- postal retail sales
- general public
- small- to medium-sized businesses
- large volume users

Zipsters primary purpose is to BAR CODE all letter with the ZIP+4 Code at source rather than centralize the bar code operation in a few selected major sorting stations.

To sum up our philosophy:

1) Print the ZIP+4 in bar code form at source

2) De-centralize the sorting operation

3) Give all mailers the responsibility to assist the USPS in implementing ZIP+4 bar codes

4) Concentrates initial efforts on the general public which will influence through public opinion the large business

The fact is that handwritten mail takes up a considerable portion of the manual operation of the USPS. Since it is machine unreadable it must be manually handled at various stages in the sorting process.

According to the OTA Review, the postal automation program is :

> "intended primarily to reduce the amount of labor required to process mail and secondarily to improve the quality of mail service. Since labor accounts for about 85 percent of total postal costs, reductions in the labor component of mail processing offer the greatest potential to cut current postal costs and restrain future cost increases."

The Zipster will completely eliminate the need for manual sorting of handwritten mail. Mail that has been zipstered can be fed directly into bar code sorters.

CAPABILITIES OF THE ZIPSTER

ZIPSTER FUNCTIONS

The Zipster will completely replace :

- -stamps
- -postage meters
- -postal scales
- -postal rate tables
- -ZIP Code directories

with ONE integrated computerized unit. The Zipster will use a software program, the ZIP*FIND, to locate ZIP+4 codes based on 5-digit Zip Codes and addresses input by the mailer. The ZIP+4 Code will then be printed in the form of an electronic bar code on the surface of the letter in two locations (top and bottom).

The Zipster incorporates all of the functions of a postage meter, electronic scale, postal rate tables, ZIP+4 directory and cash register. The Zipster will weigh the letter using a built-in electronic weighing scale, calculate the correct postage based on postal rates selected and print the stamp, ZIP+4 Code in numeric form and ZIP+4 Code in bar code form.

DETAILED FUNCTIONS:

1) Find ZIP+4 Codes based on addresses input by user

2) Weigh envelopes electronically

3) Permit user to select postage rate desired

4) Permit user to select special postal services

5) Calculate postage based on ZIP+4 cod, weight of envelope, mail rate and special postal services selected

6) Print ZIP+4 Code in electronic bar code form in two locations (top and bottom)

7) Print ZIP+4 Code in numerical form

8) Print conventional stamp that includes:
   -date
   -time
   -value
   -meter user code
   -location

9) Print special postal service directly on envelope:
   -air mail
   -registered
   -insured
   -express

10) Print special messages as desired:
   -advertising message
   -logo

11) Built in cash register operations for retail unit

12) Maintain accounting system of postage used by any category required

PRODUCT RANGE

The Zipster Family of products include :

ZIPSTER I	- Retail Post Office Unit
ZIPSTER II	- Post Office Lobby Unit
ZIPSTER III	- Post Office/Business Unit for Packages
ZIPSTER IV	- Business Unit for Letters with optional Package Weighing Unit
ZIPSTER V	- Business Unit with Multi-Line OCR and Laser Printer

ZIPSTER I - Retail Post Office Unit

The design specifications for the ZIPSTER I are based on the specific requirements of operating this unit within manned-postal stations. The ZIPSTER I will replace existing methods of weighing envelopes, searching for rate zones, finding relevant postal rates, setting postage meters, affixing stamps, keeping track of postage dispensed, calculating change and issuing receipts.

Current retail sales of the USPS are labor-intensive and inefficient. The ZIPSTER I gives the USPS the ability to give the general public quick and efficient service. All mail that has been processed through ZIPSTER I is ZIP+4 bar coded and can be sent directly to electronic bar code sorters. All manual handling will be eliminated.

ZIPSTER II - Post Office Lobby Unit

The design specifications for the ZIPSTER II are based on the specific requirements for operating this unit by the general public. Similar in nature to a 'PULSE' machine, the ZIPSTER II will have "user-friendly" prompt messages that will lead the user through a step-by-step process.

The ZIPSTER II will offer to the general public the opportunity of 24-hour postal service as well as give them the benefits of ZIP+4 bar coding.

The ZIPSTER II will operate by means of a special "read-write" credit card called the "ZIP*CARD". This card will replace existing stamp dispensing machines with a modern efficient system of control for the USPS. Instead of losing interest on money in stamp dispensing machines, the USPS will maintain a large "float" on outstanding ZIP*CARDS.

The ZIPSTER II will virtually eliminate the need for cancelling stamps and manual sorting of handwritten letters.

ZIPSTER III - Post Office/Business Unit for Packages

The ZIPSTER III is designed to weigh packages. It can be used by either the Post Office or businesses and includes a label dispensing system. The address, ZIP+4 Code in bar code and numerical form will be printed on the label. This label will then be affixed to the package.

The ZIPSTER III will eliminate the need for manual sorting of packages.

ZIPSTER IV - Business Unit

The ZIPSTER IV incorporates all the features of the Zipster without the cash register operations. It will require the user to buy postage from the Post Office in the form of a ZIP*CARD. Without the ZIP*CARD the machine will not operate.

ZIPSTER V - Large Business Unit

The ZIPSTER V is a high speed machine designed for large volume mailers. The machine will ZIP+4 bar code letters at a rate of about 10,000 letters per hour. It will utilize ultra-sonic weighing systems, character reading technology and ZIP+4 laser disc directories.

RETURN ON INVESTMENT

The Zipster will bring about a complete revolution in the USPS and will result in immediate savings.

The basic concept of the Zipster is to eliminate manual handling of mail. This will allow the USPS to increase their efficiency without the need for ever increasing labor costs.

One must realize that when dealing with 131 BILLION letters ONE SECOND SAVED ON EVERY LETTER MEANS 36 MILLION MAN HOURS SAVED OR 4,000 MAN YEARS!

The three area of biggest savings will be:

1) Labor intensive costs involved in manual sorting.

2) Increase in efficiency of retail operations will decrease dramatically the labor costs involved.

3) Eliminating the labor and machinery involved in cancellation and postmarking letters.

4) Eliminating the manual labor involved in package sorting.

5) Production of stamps will be reduced to cater to philactic needs.

There are many secondary sources of savings, including:

1) Revenue losses, including those caused by

-underpaid postage
-re-use of cancelled stamps

2) Elimination of all stamp vending machines, which are labor intensive operations and including:

-cost of collecting coins
-cost of handling and sorting coins
-lost interest income

3) Decrease ground and air transportation costs due to the ability of sub-stations to sort ZIP+4.

4) Eliminate need for:

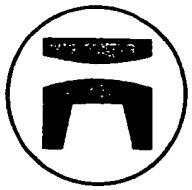
-postal scales
-postal meters
-printing of postal rate tables
-printing of ZIP Code Books
-printing of various postal forms
-maintaing manual log/record books

ZIP*CARD

The introduction of a ZIP*CARD System to operate the Lobby Units will produce between $200-300 million dollars of 'float' for the USPS and will generate interest income of approximately $30-40 million dollars.

ACCOUNTING

The Zipster, being a fully computerized machine, will allow the USPS to network the system to a main computer to obtain instant accounting of all income generated by Zipsters. This will allow the USPS accurate accounting of their cash flow situation.



Pi Electronics Corp.

COPY #: _____

Z i p s t e r

The ZIP+4 Machine

Asher Gil, President and CEO

11233A Crown Park Drive • Houston, Texas 77067 • (713) 874-9447

Introduction

Pi Electronics, a Houston based company, has developed a family of integrated computerized mail processing machines under the brand name of Zipster. As a small, independent company we took the initiative to develop a new generation of mail processing machines designed to address the automation needs of the USPS.

We approached the development of the Zipster from two premises: (1) that ZIP+4 usage should be made easily accessible to all mailers and (2) that pre-bar coding is the ultimate answer to automation. The Zipster meets these objectives by having the:

> Ability to accept keyboard address input and quickly look up ZIP+4 codes using an internal mass memory (which includes the entire ZIP+4 national directory) and translate the ZIP+4 numerical information into bar code form, and print the ZIP+4 bar code on the surface of the letter.

Zipsters, designed as stand-alone units, are computerized integrated mail processors. Zipsters have built-in mass memory systems that hold the entire ZIP+4 national directory. This memory system can be easily and cheaply updated whenever necessary.

In addition, Zipsters have a wide range of features that carry out a host of tasks, including:

- weighing mail
- searching and finding rate zones
- calculating correct postage
- processing all special services (certified, registered, insured, etc.)
- printing stamp, date, time, location, user number
- printing customized messages
- issuing appropriate receipts
- maintaining accounting records

Zipsters (patents pending) employ the latest Motorola 68000 series micro-processors, mass memory and other electronic innovations to assure that the Zipster family of products will remain "ahead" of its time. By using a true 32-bit computer, Zipsters can be networked and easily interfaced into the USPS main frame computer system.

The following is a brief description of four of our Zipster models.

Zipster MailMaster

The Zipster MailMaster is specifically designed to automate USPS retail window operations. (A combination of PRISM and IRT.)

The main features of the MailMaster are:

- weighs mail
- accepts address information by keyboard input
- looks up ZIP+4 codes
- prints the ZIP+4 code in both numeric and bar code form in two locations (top/bottom)
- calculates postage
- prints stamp, date, time, location, user number
- includes all special services (certified, registered, insured, etc.)
- built-in cash register operation
- furnishes customer receipts
- maintains and transmits accounting information to supervisory stations for automatic preparation of Form 1412-A, Daily Financial Report)

The MailMaster is not limited by legibility and other scanning limitations and handles mail up to 12" by 16". It will process all machinable mail, flat mail and handwritten letters.

MAJOR BENEFITS TO THE USPS:

- o assures that all mail processed in USPS retail outlets is ZIP+4 bar coded
- o improves service to customers
- o educates customers as to importance of ZIP+4
- o eliminates handwritten forms for special services (certified, registered, insured, etc.)
- o increases window clerks efficiency/productivity
- o enhances window clerks job satisfaction
- o eliminates excessive paperwork such as preparation of Form 1412A
- o decreases end-of-day inventory/accounting tasks
- o provides audit trails and tools to administer and control window operations

Zipster ReadyMailer

The Zipster ReadyMailer is designed to be operated by the general public. The ReadyMailer will provide the public with postal services 24 hours-per-day, 365 days-per-year. It is a stand-alone portable unit, similar to the new portable automated teller machines. ReadyMailers can be located in shopping centers, airports, supermarkets and other high traffic areas. It employs "user-friendly" prompt messages. The ReadyMailer is designed to be operated by means of a special read-write ZIP*CARD, similar to the cards used by the Washington D.C. subway system.

The main features of the ReadyMailer are:

- weighs mail
- accepts address information by keyboard input
- looks up ZIP+4 codes
- prints the ZIP+4 code in both numeric and bar code form in two locations (top/bottom)
- calculates postage
- prints stamp, date, time, location, user number
- includes all special services (certified, registered, insured, etc.)
- furnishes customer receipts
- maintains account records

MAJOR BENEFITS TO THE USPS:

- o improves service to customers
- o educates customers as to importance of ZIP+4
- o assures that all mail processed is ZIP+4 bar coded
- o allows USPS to maintain sizable "float" from ZIP*CARDS
- o decreases the costs involved in maintaining vending machines (loss of interest income, theft, etc.)
- o decreases the need for "800" ZIP+4 information services

Zipster Sprinter

The Zipster Sprinter is a high-speed mail processor designed to handle the large volume of mail rejected by optical character readers (OCRs). The single purpose of the Sprinter is to print a ZIP+4 bar code on envelopes that have been rejected by OCRs. The Sprinter is operator paced and designed to process 2,400 letters per hour utilizing four operators.

The main features of the Sprinter are:

- accepts address input by keyboard
- automatic feed of all machinable and flat mail
- prints the ZIP+4 code in bar code form in one location (bottom)
- provides for remote operation away from the noisy and dusty sorting areas

MAJOR BENEFITS TO THE USPS:

- o generates ZIP+4 bar coded mail to be sorted by BCRs
- o provides a computerized alternative to old mechanical MPLSMs
- o increases operator efficiency/productivity
- o enhances operator job satisfaction
- o improves operator working environment

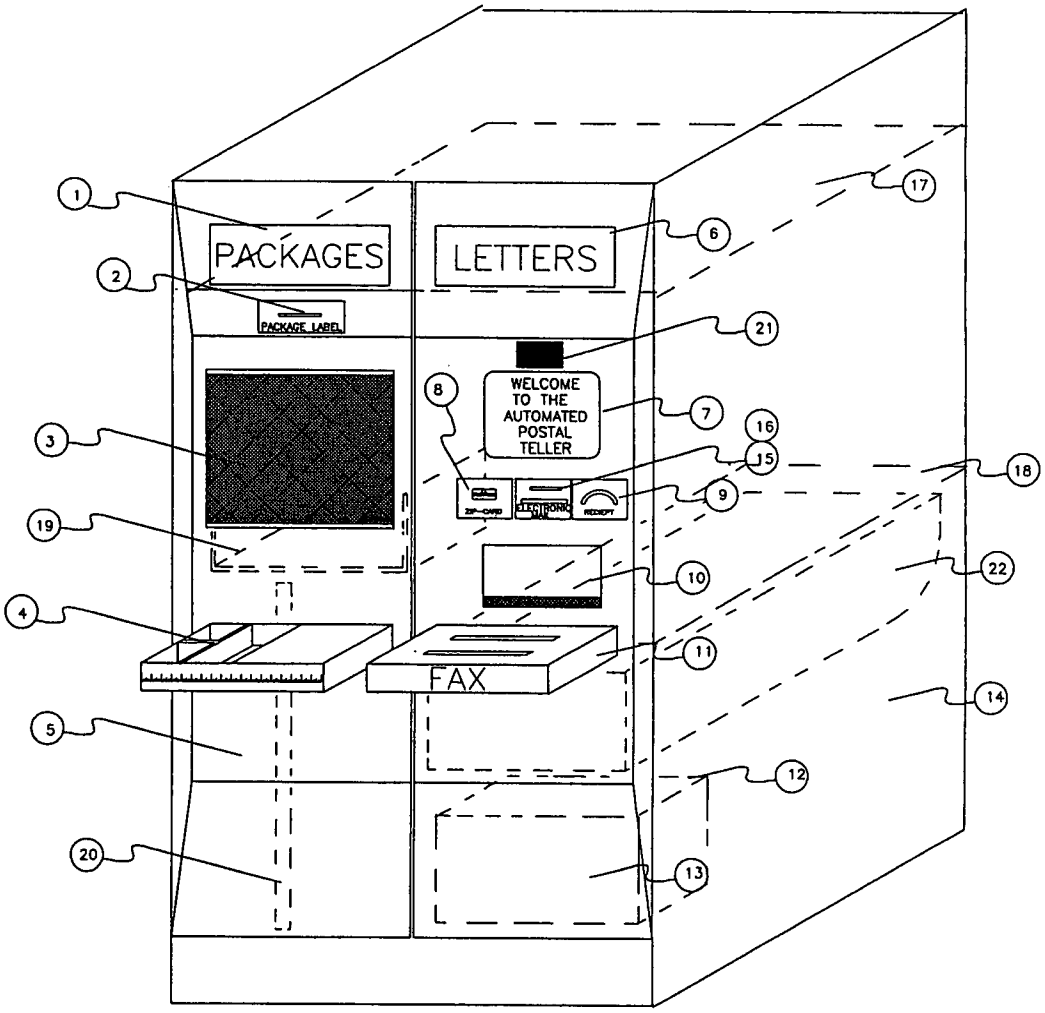
Zipster Professional

The Zipster Professional is designed for business use. The Professional represents a major upgrade over today's business postal metering machines. The Professional closely resembles the MailMaster with the exception of the cash register. The Professional finds ZIP+4 codes, prints ZIP+4 codes in numeric and bar code form, weighs mail, and calculates and prints postage. In addition, the Professional keeps mailing lists, prints advertising messages, and keeps accounting records of all transactions and postage used.

Special electronic security systems assure that there can be no tampering with postage, date or meter user number.

MAJOR BENEFITS TO THE USPS:

- assures that all business mail is ZIP+4 bar coded
- assures that all stamps are correctly dated
- assures that all mail is accurately weighed
- eliminates tampering of metering device
- decreases the need for expensive advertising to promote usage of ZIP+4
- decreases the need for "800" ZIP+4 information services
- decreases the need for printing of the ZIP Code Directory



BILL OF MATERIALS

ITEM	REQ'D	DESCRIPTION
1	1	SIGN - PACKAGES
2	1	PACKAGE LABEL PRINTER
3	1	PACKAGE WINDOW DOOR
4	1	WORK TRAY-PACKAGE SIDE W RULER & DIVIDERS FOR STORING SUPPLIES & USPS FORMS
5	1	PLASTIC DOOR-PACKAGE SIDE
6	1	SIGN-LETTERS
7	1	TOUCH SCREEN COMPUTER MONITOR
8	1	CARD READER
9	1	RECIEPT PRINTER
10	1	LETTER ACCEPTANCE SLOT
11	1	FAX AND HOUSING
12	1	SHIPPING AND MAIL MANIFEST PRINTER
13	1	PLASTIC DOOR-LETTER SIDE
14	1	SHEET METAL ENCLOSURE
15	1	FLOPPY DISK 3 1/2 -ELECTRONIC MAIL
16	1	FLOPPY DISK 5 1/4 -ELECTRONIC MAIL
17	1	ELECTRONICS TRAY
18	1	LETTER HANDLING SYSTEM ASSY
19	1	PACKAGE SCALE AND TILT MECHANISM
20	1	SLIDING WINDOW MECHANISM
21	1	LOUDSPEAKER
22	1	LETTER TRAY

REVISIONS

REV	DATE	DESCRIPTION

ZIPSTER PLUS

PI ELECTRONICS
HOUSTON, TEXAS

DRAWN	J.B.DARON	DATE 8 21 90
CHECKED	J.B.DARON	
APPROVED		SCALE
DRAWING NUMBER	ZP-30	REV 10

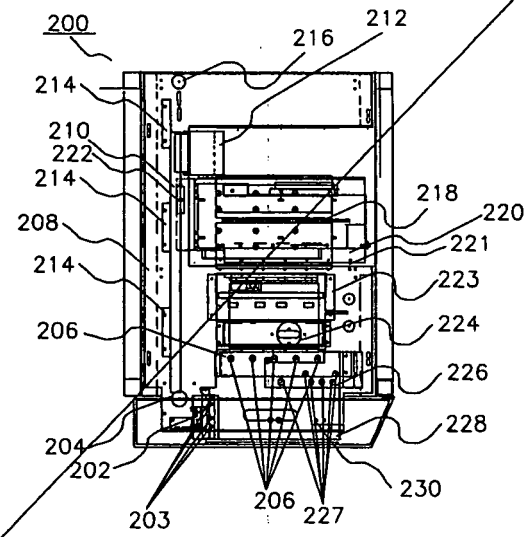
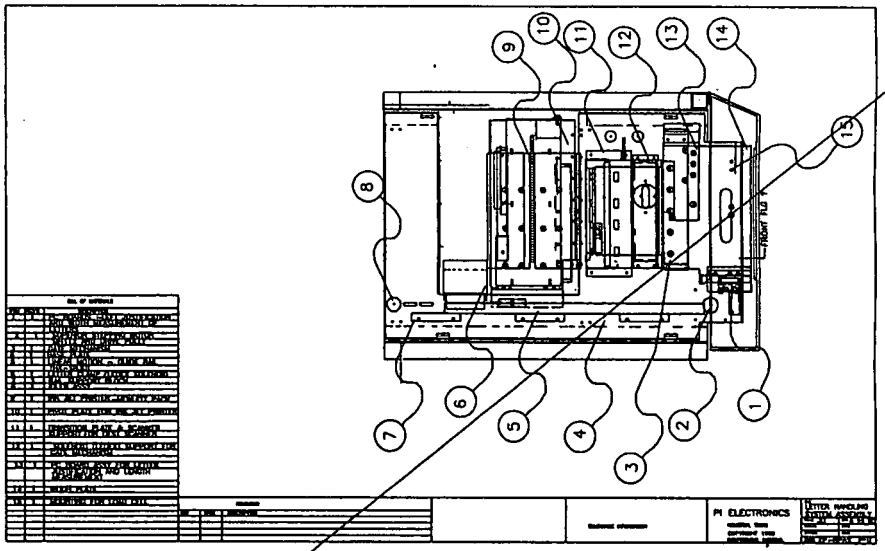

200
216
212
214
210
222
214
218
220
208
221
214
223
206
224
226
228
204
202
230
203
206
227

FIGURE 2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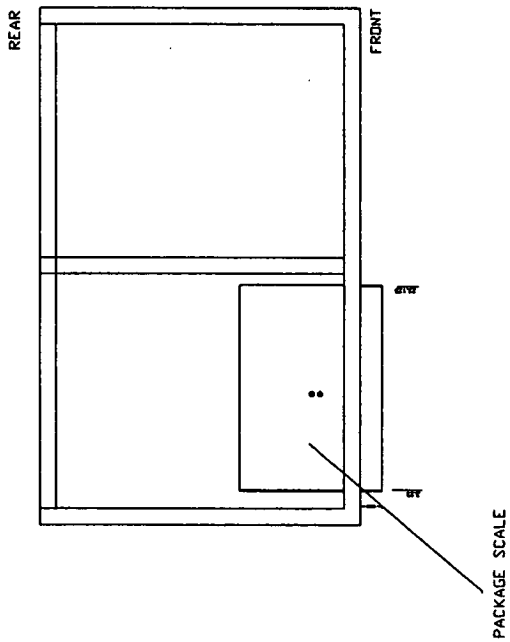
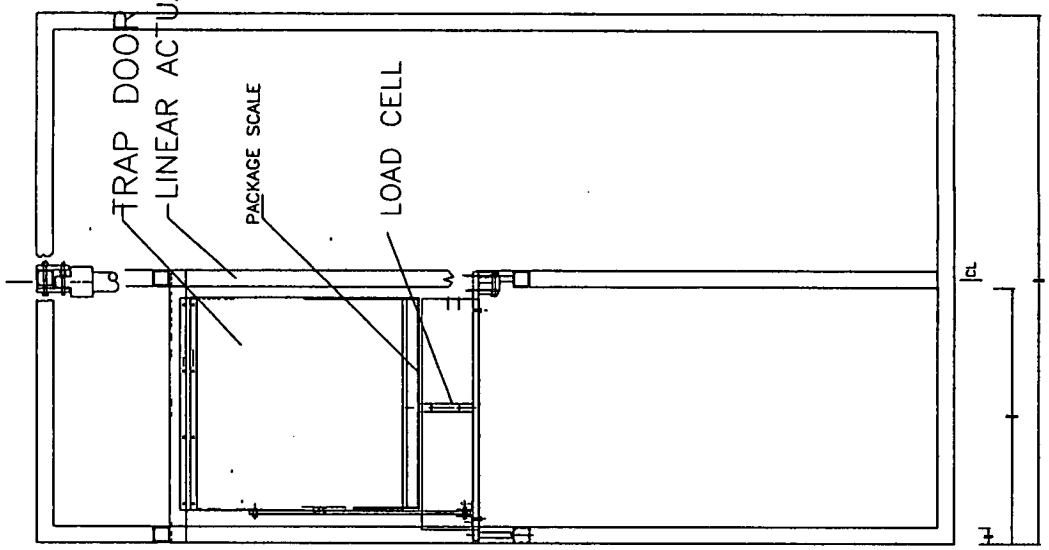
10
11
12
13
14
15
8
7
6
5
4
3
2
1
PI ELECTRONICS



PLAN VIEW

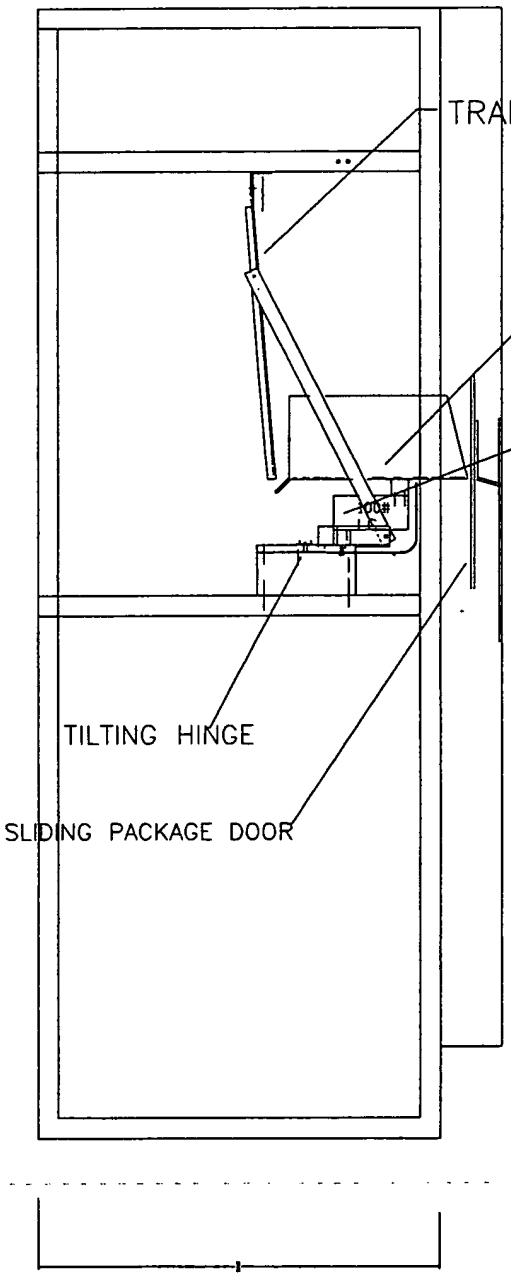
BILL OF MATERIALS			REVISIONS					
ITEM	REQ'D	DESCRIPTION	REV	DATE	DESCRIPTION	TOLERANCE INFORMATION	PI ELECTRONICS HOUSTON, TEXAS COPYRIGHT 1990 CONFIDENTIAL	ZIPSTER PLUS PACKAGE TILTING MECHANISM JBD 9 15 90 2 ZP-PTM

FRONT VIEW



BILL OF MATERIALS			REVISIONS					
ITEM	REQ'D	DESCRIPTION	REV	DATE	DESCRIPTION	TOLERANCE INFORMATION	PI ELECTRONICS HOUSTON, TEXAS	ZIPSTER PLUS PACKAGE TILTING MECHANISM
								JBD 9 15 90

ZP-PTM



LEFT
SIDE
VIEW

PACKAGE
SCALE
SHOWN
UPRIGHT
FOR
RECIEVING
PACKAGES
FROM
CUSTOMER

BILL OF MATERIALS

ITEM	REQ'D	DESCRIPTION

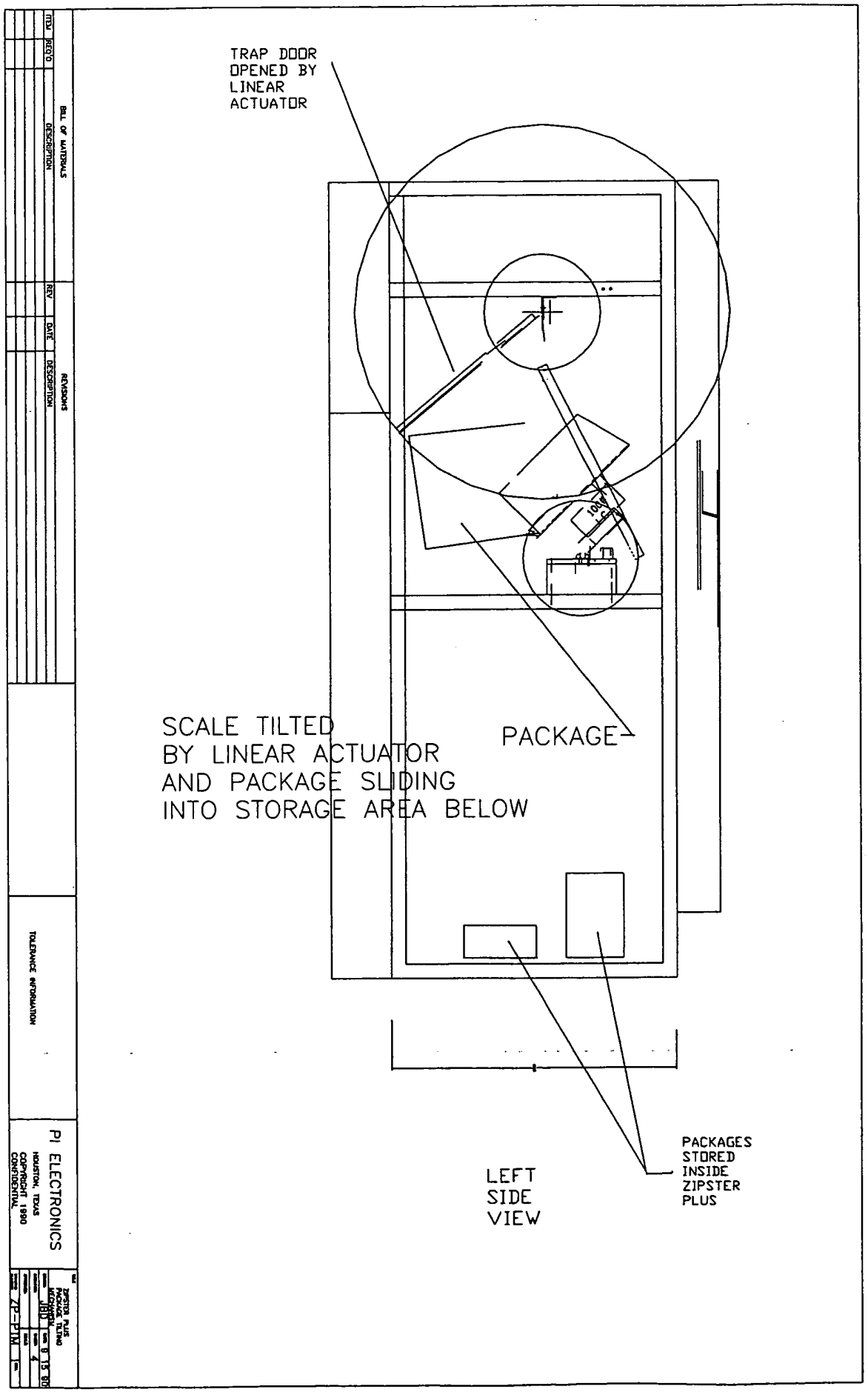
REVISIONS

REV	DATE	DESCRIPTION

TOLERANCE INFORMATION

PI ELECTRONICS
HOUSTON, TEXAS

ZIP-PTM


TRAP DOOR
OPENED BY
LINEAR
ACTUATOR
SCALE TILTED
BY LINEAR ACTUATOR
AND PACKAGE SLIDING
INTO STORAGE AREA BELOW
PACKAGE
PACKAGES
STORED
INSIDE
ZIPSTER
PLUS
LEFT
SIDE
VIEW
BILL OF MATERIALS
ITEM
REQ'D
DESCRIPTION
REVISIONS
REV
DATE
DESCRIPTION
TOLERANCE INFORMATION
PI ELECTRONICS
HOUSTON, TEXAS
COPYRIGHT 1998
CONFIDENTIAL
ZIPSTER PLUS
PACKAGE TILTING
MECHANISM
ZP-PTM

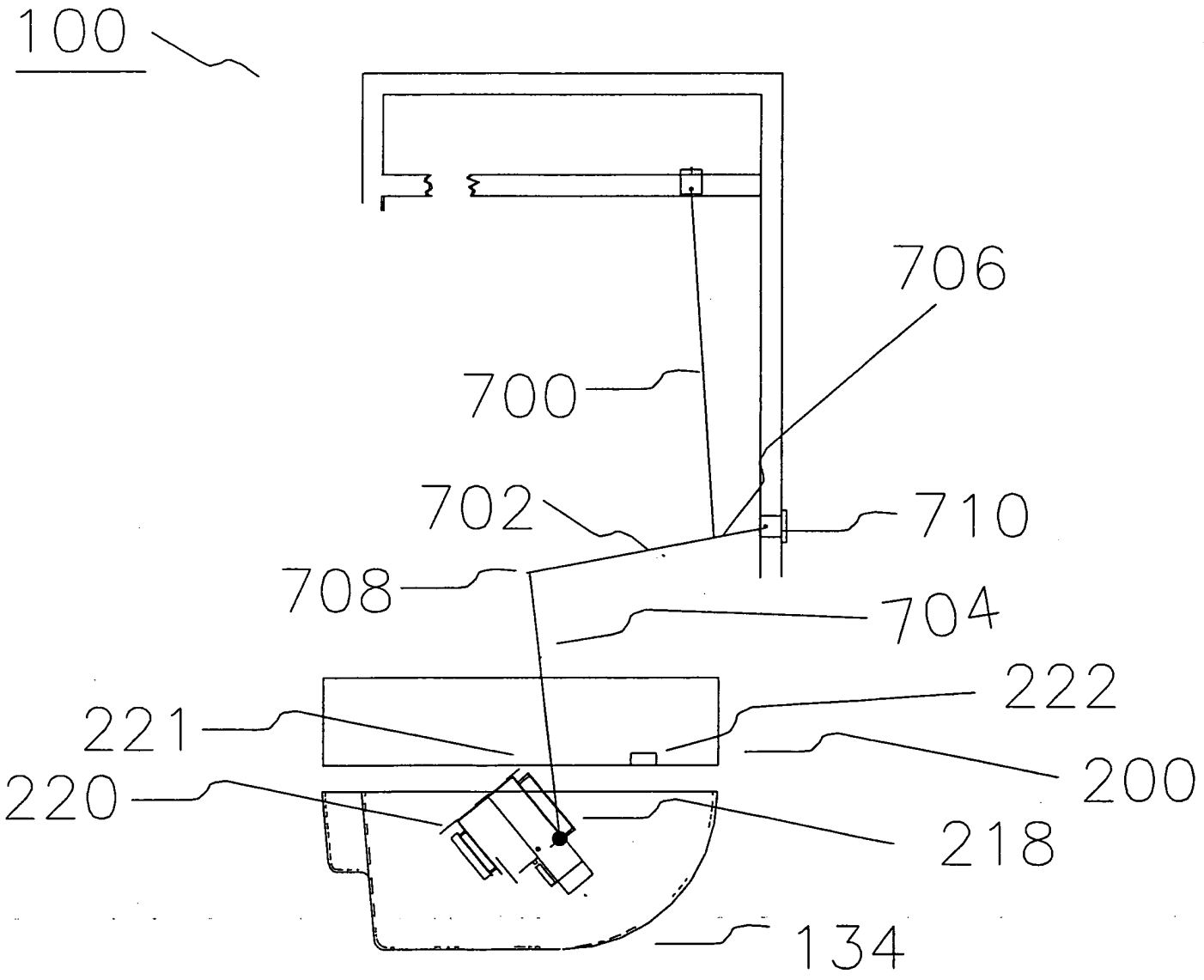
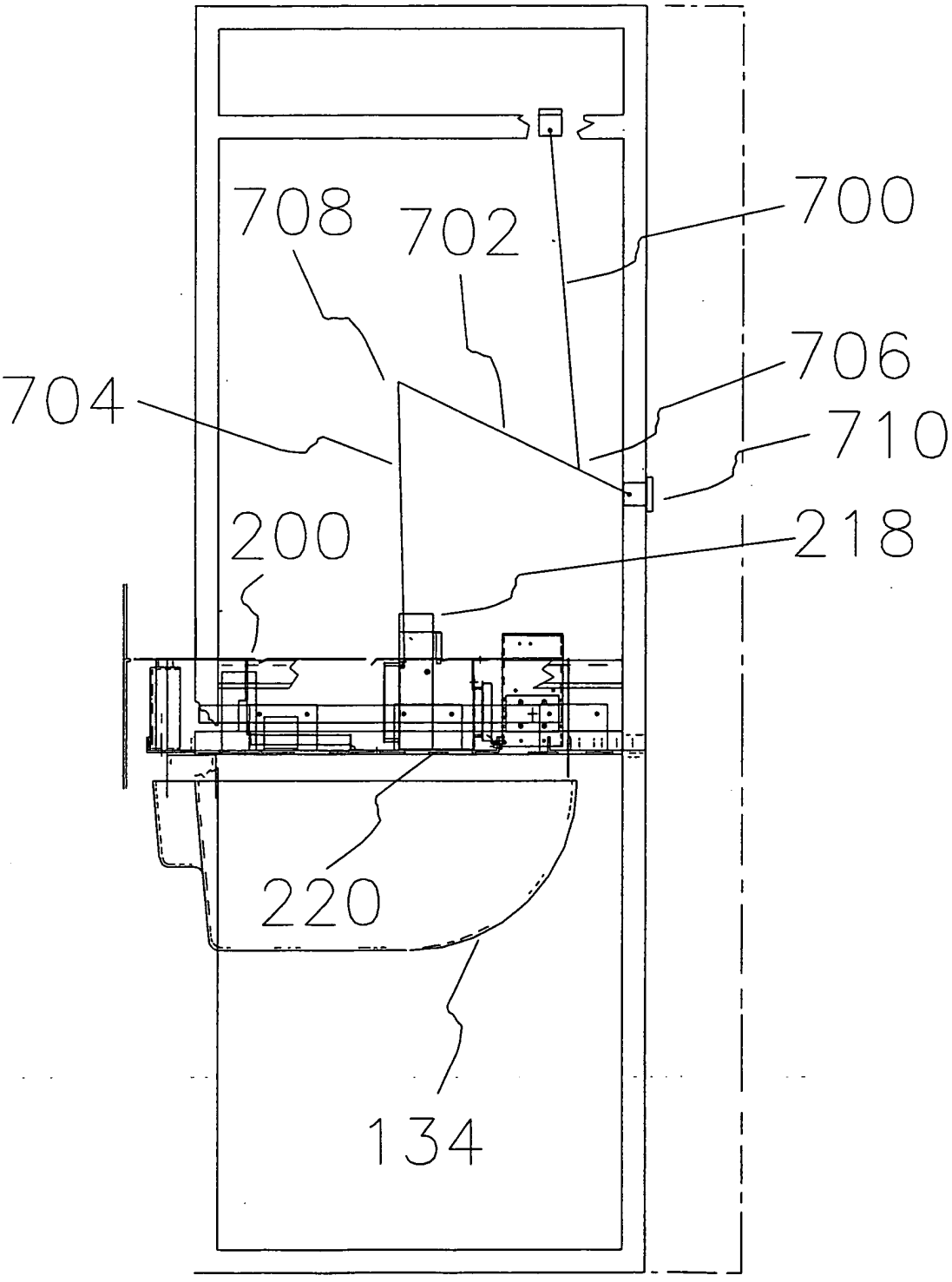
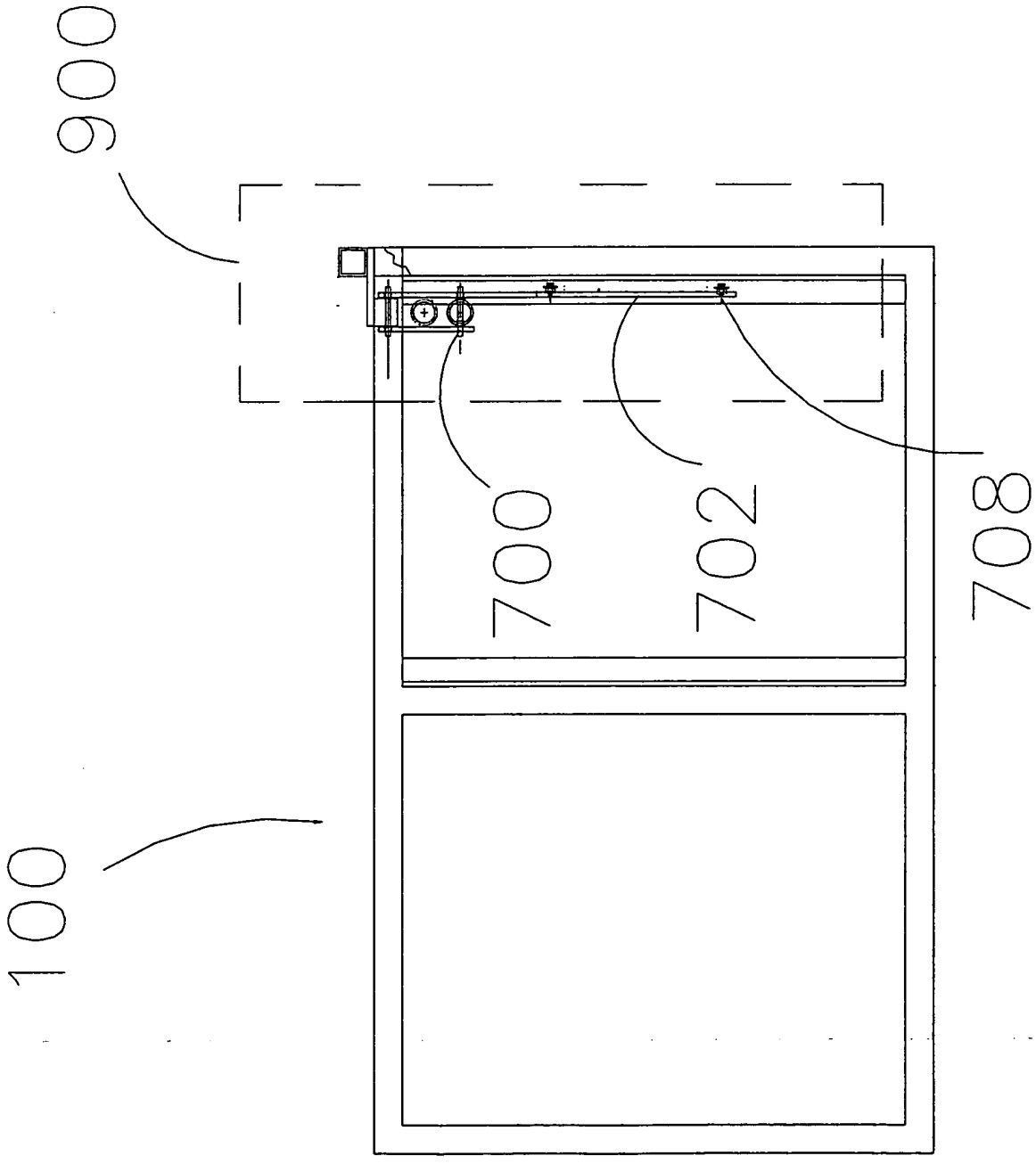
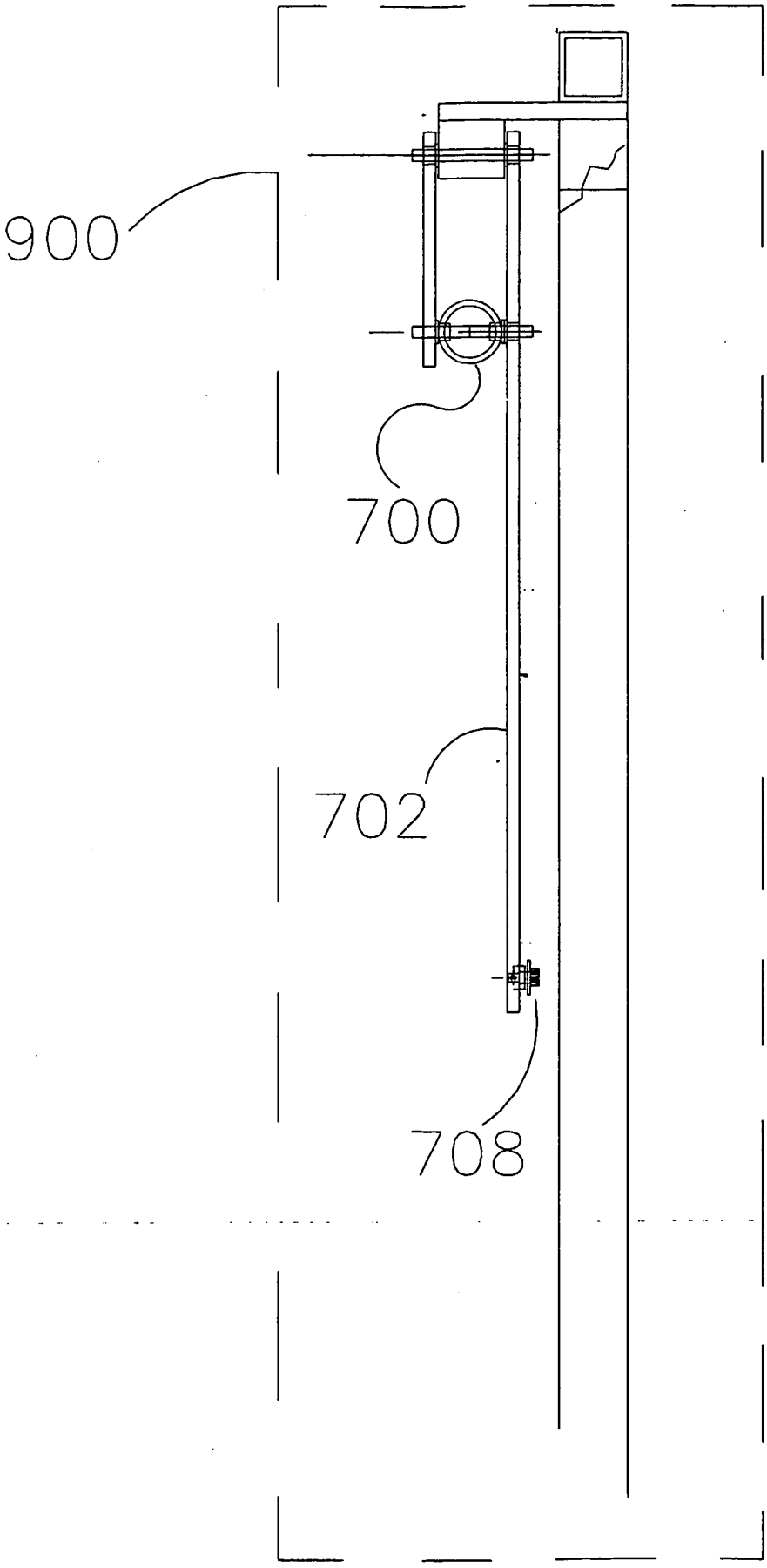


FIGURE 7


708
702
700
706
704
710
200
218
220
134


900
700
702
708
100


900
700
702
708

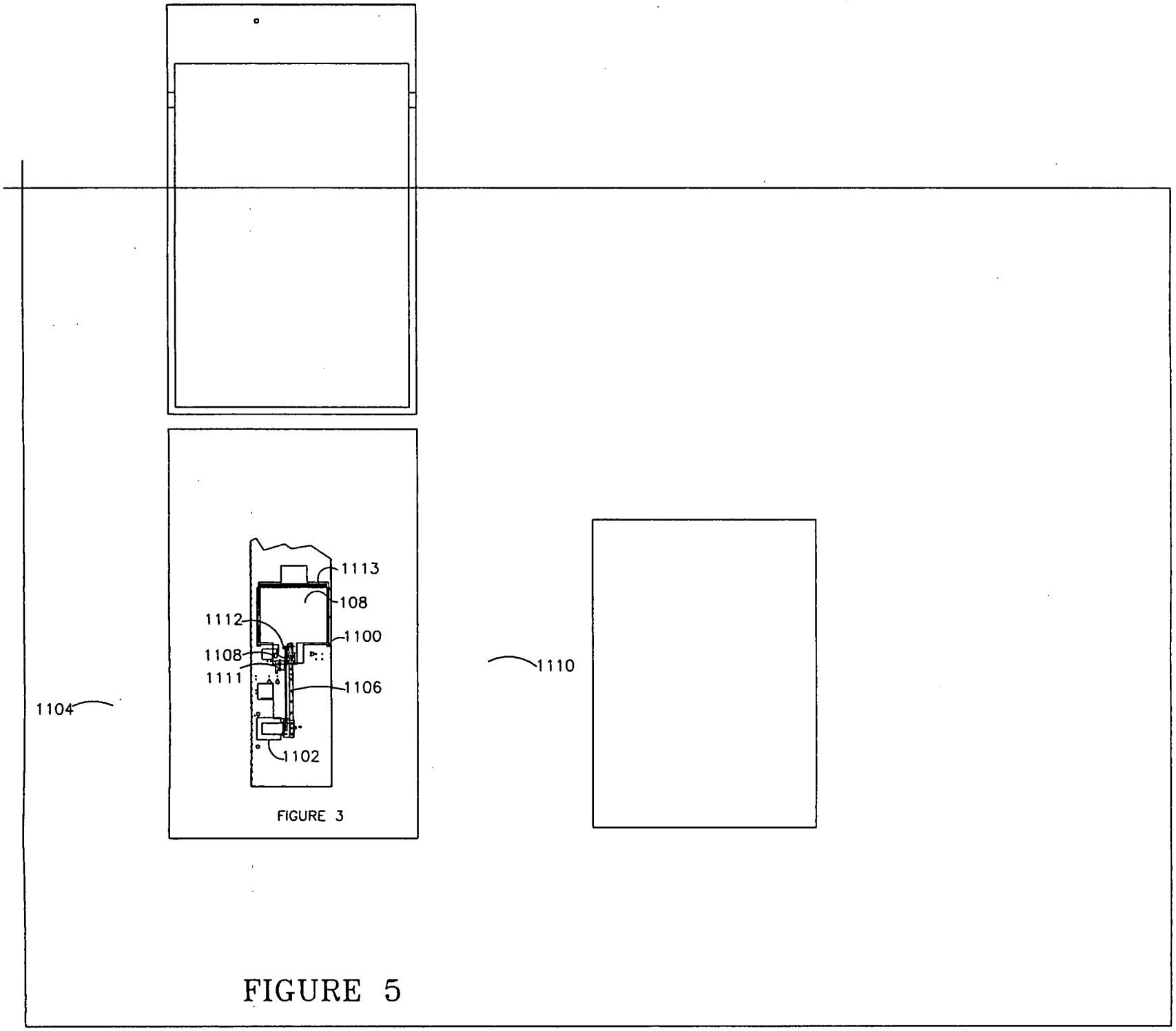
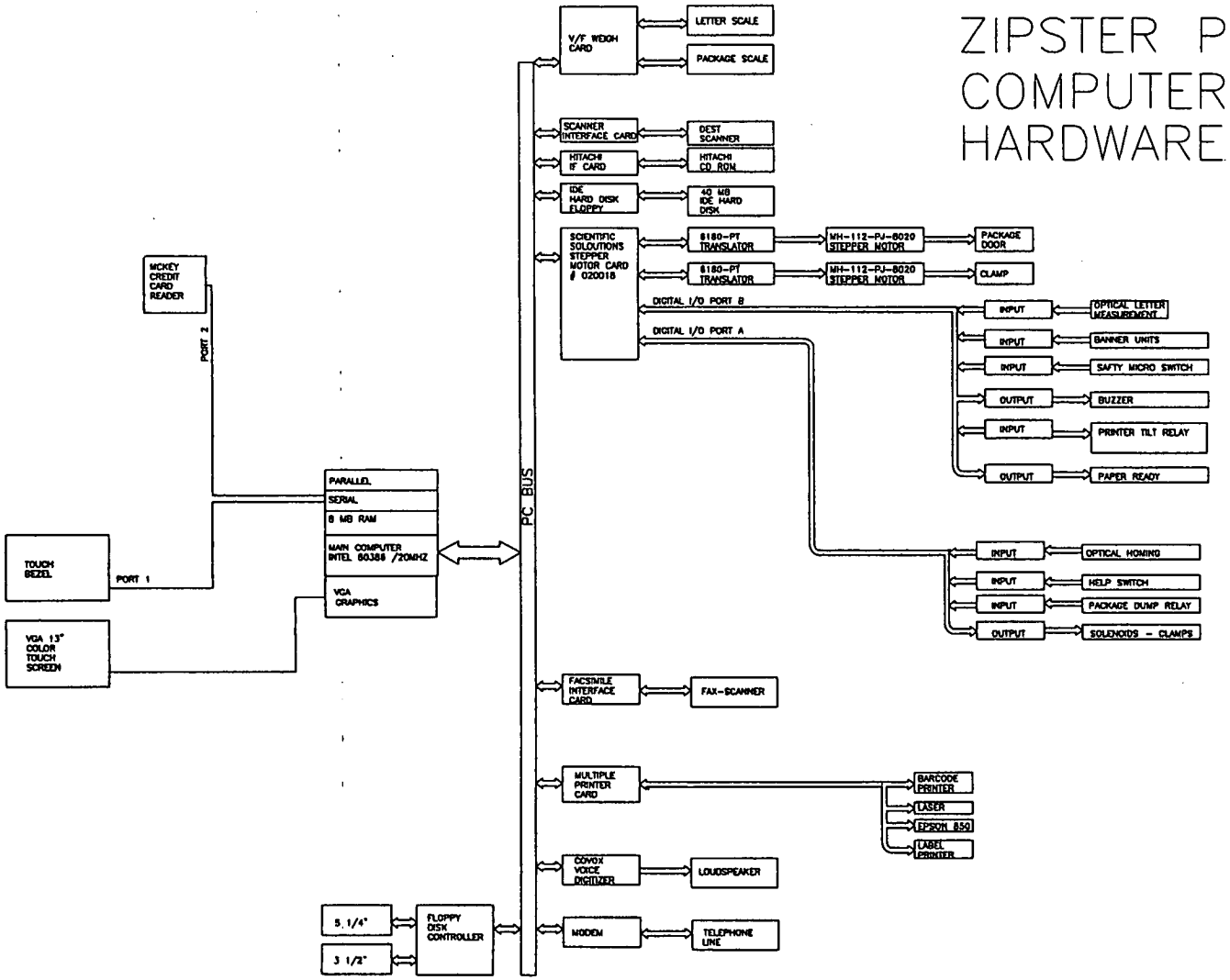


FIGURE 3

FIGURE 5

ZIPSTER PLUS COMPUTER HARDWARE DIAGRAM



BILL OF MATERIALS			REVISIONS				
ITEM	REQ'D	DESCRIPTION	REV	DATE	DESCRIPTION	TOLERANCE INFORMATION	PI ELECTRONICS HOUSTON, TEXAS COPYRIGHT 1990 CONFIDENTIAL MATERIAL

ZIPSTER PLUS COMPUTER HARDWARE DIAGRAM
JBD 9 15 90
ZP-50 0

FIGURE 12b

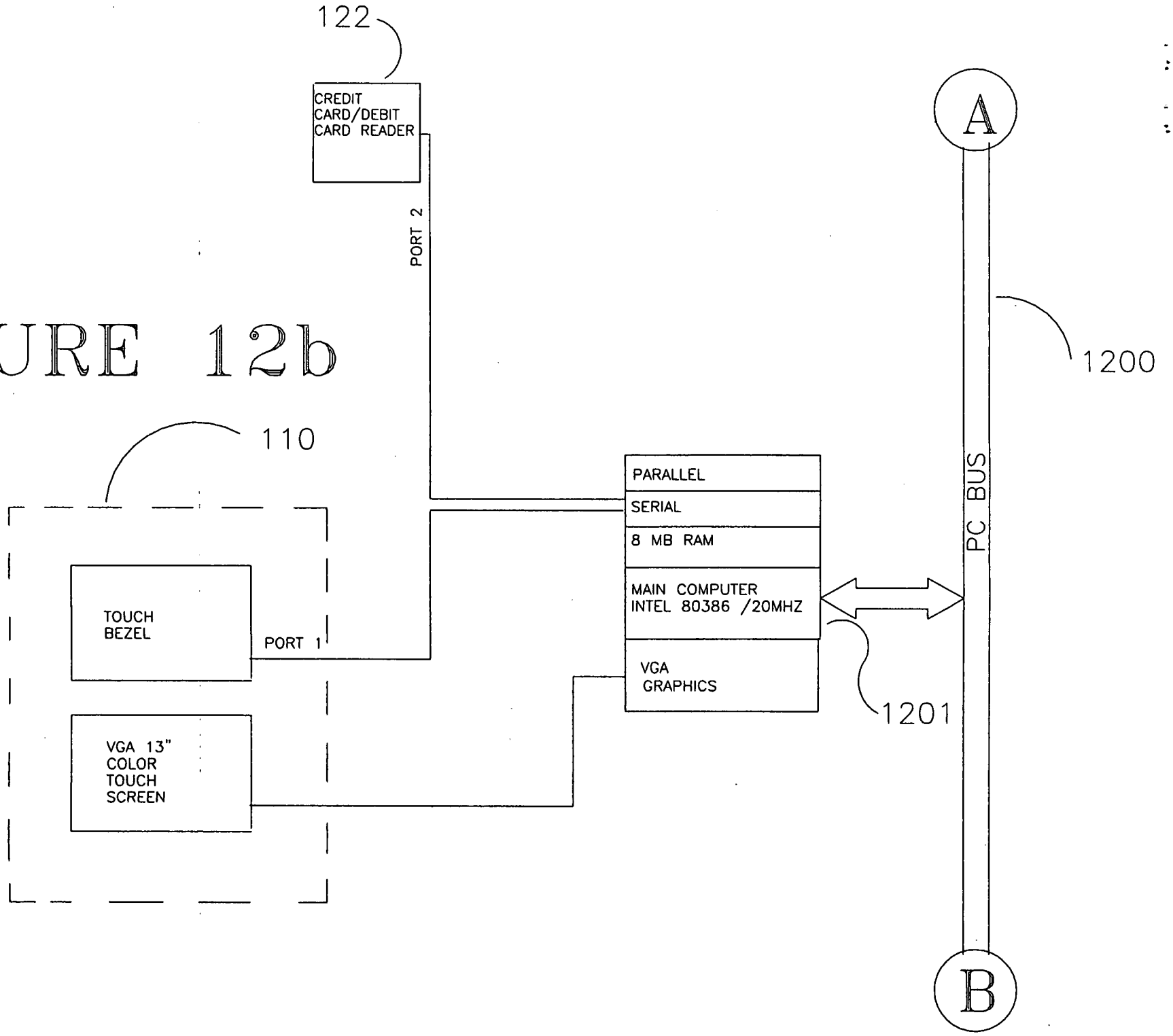
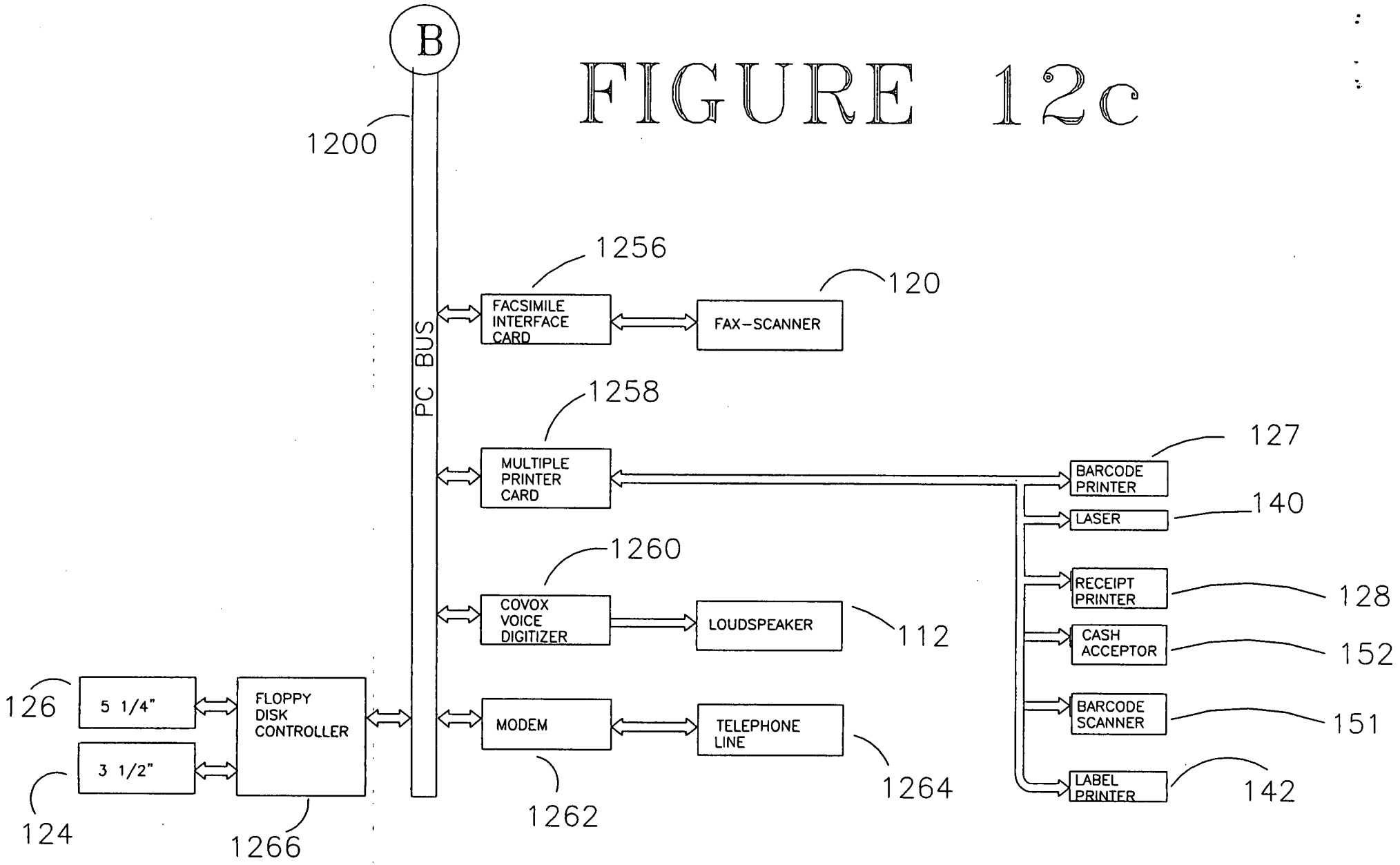
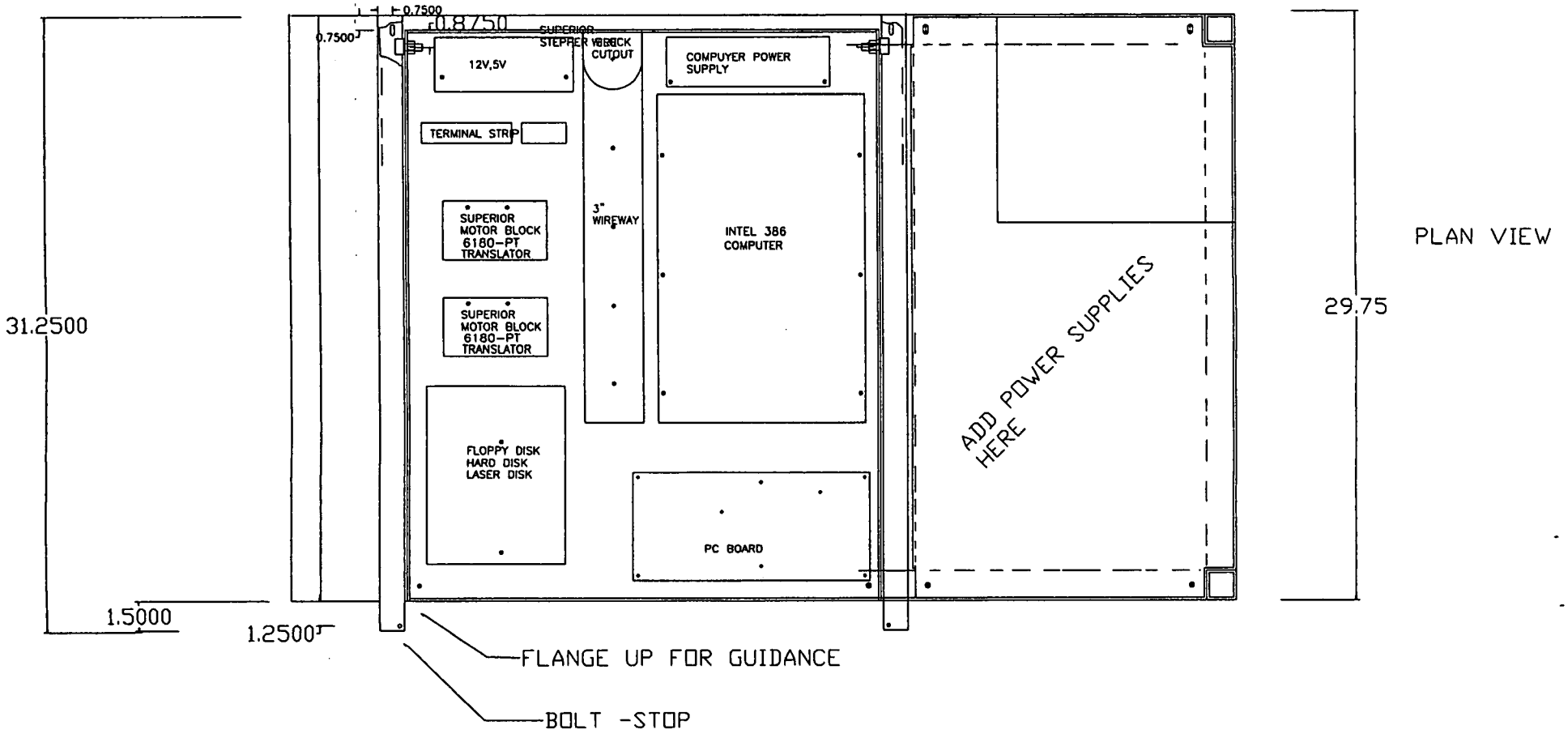

122
CREDIT CARD/DEBIT CARD READER
PORT 2
A
1200
110
PARALLEL
SERIAL
8 MB RAM
MAIN COMPUTER INTEL 80386 /20MHZ
VGA GRAPHICS
PC BUS
TOUCH BEZEL
PORT 1
VGA 13" COLOR TOUCH SCREEN
1201
B

FIGURE 12c

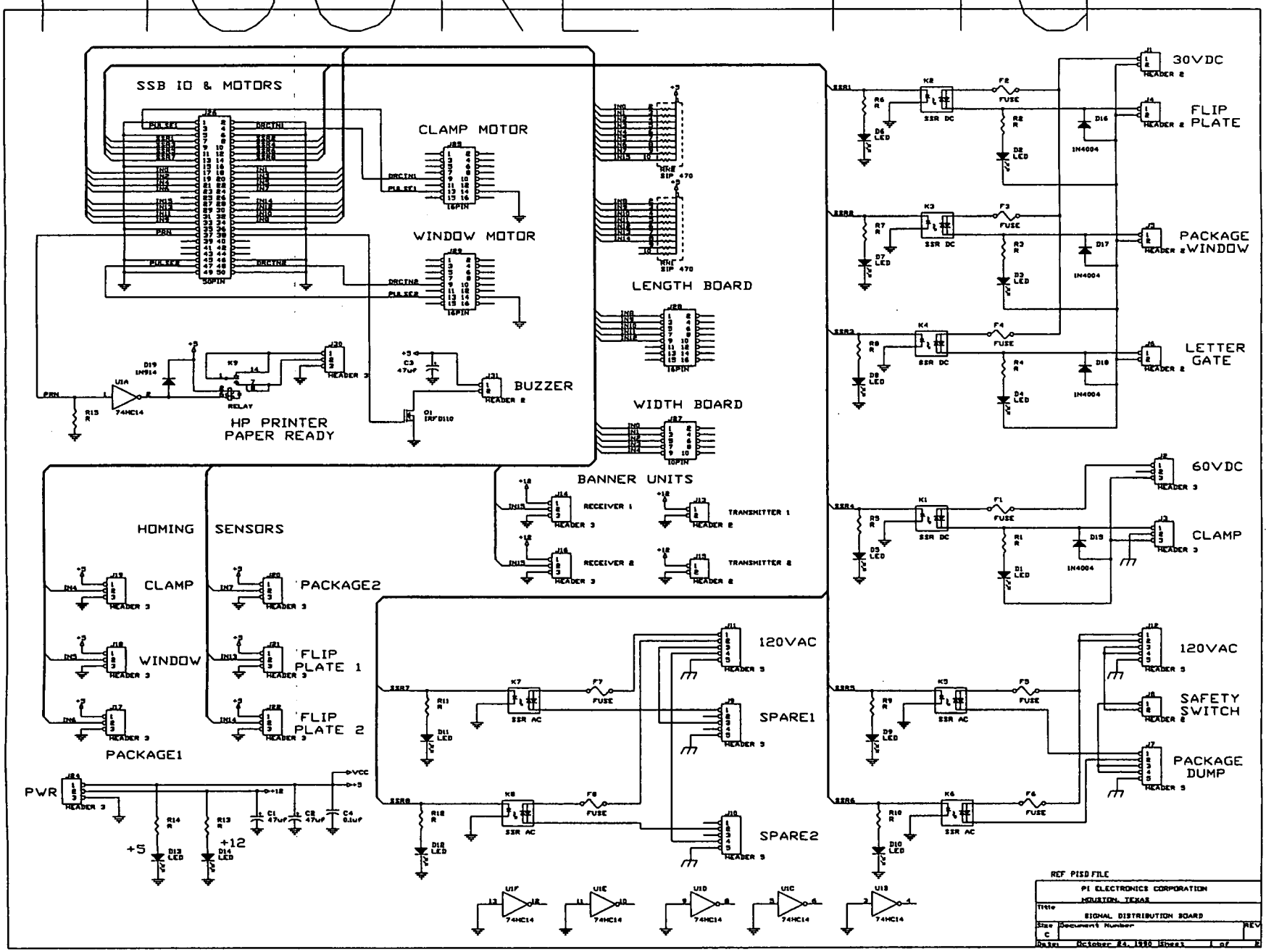

B
1200
PC BUS
1256
FACSIMILE INTERFACE CARD
120
FAX-SCANNER
1258
MULTIPLE PRINTER CARD
127
BARCODE PRINTER
140
LASER
1260
COVOX VOICE DIGITIZER
LOUDSPEAKER
112
RECEIPT PRINTER
128
CASH ACCEPTOR
152
BARCODE SCANNER
151
LABEL PRINTER
142
126
5 1/4"
3 1/2"
FLOPPY DISK CONTROLLER
124
1266
MODEM
1262
TELEPHONE LINE
1264

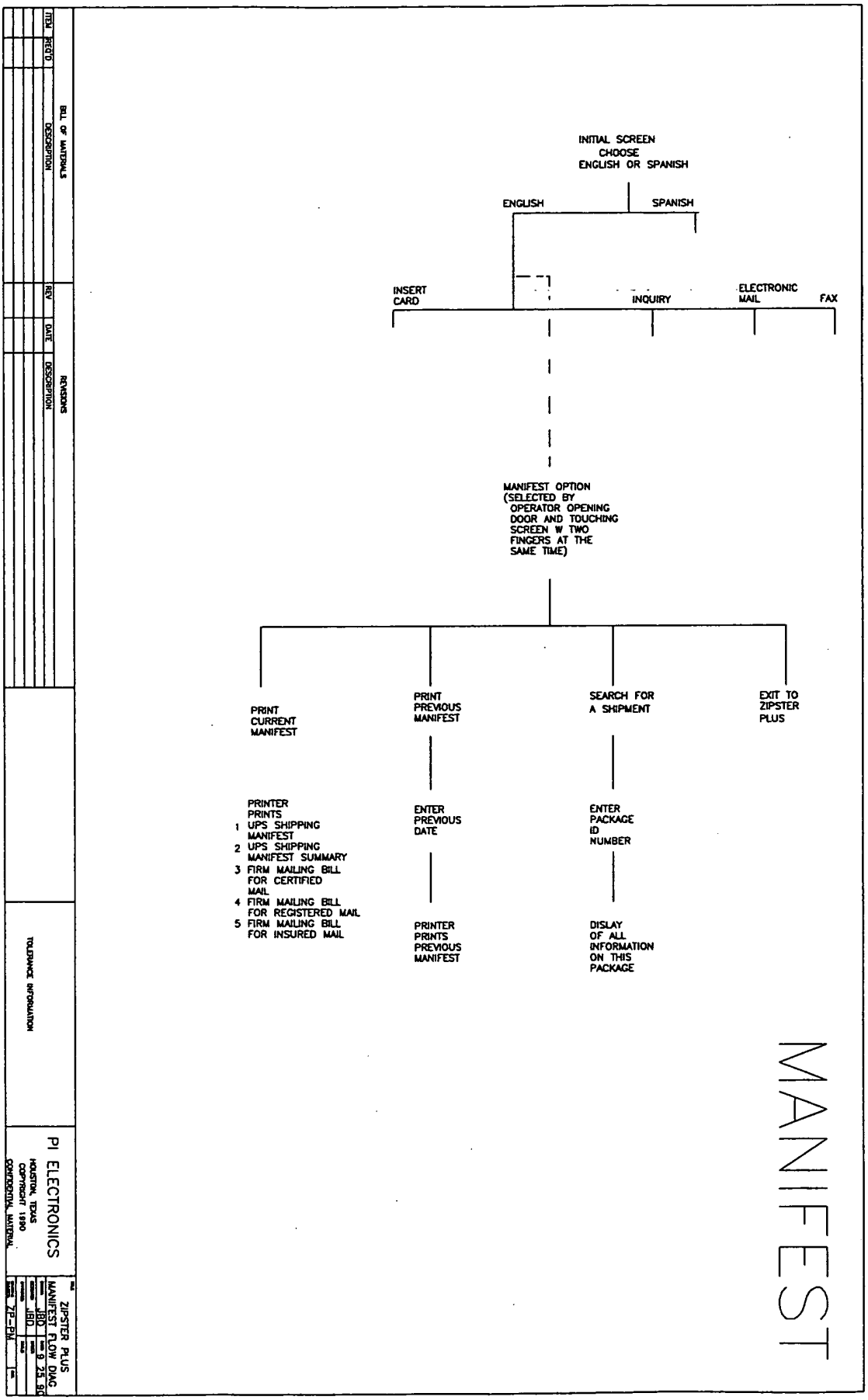
the sheet metsl plate is shorter than this

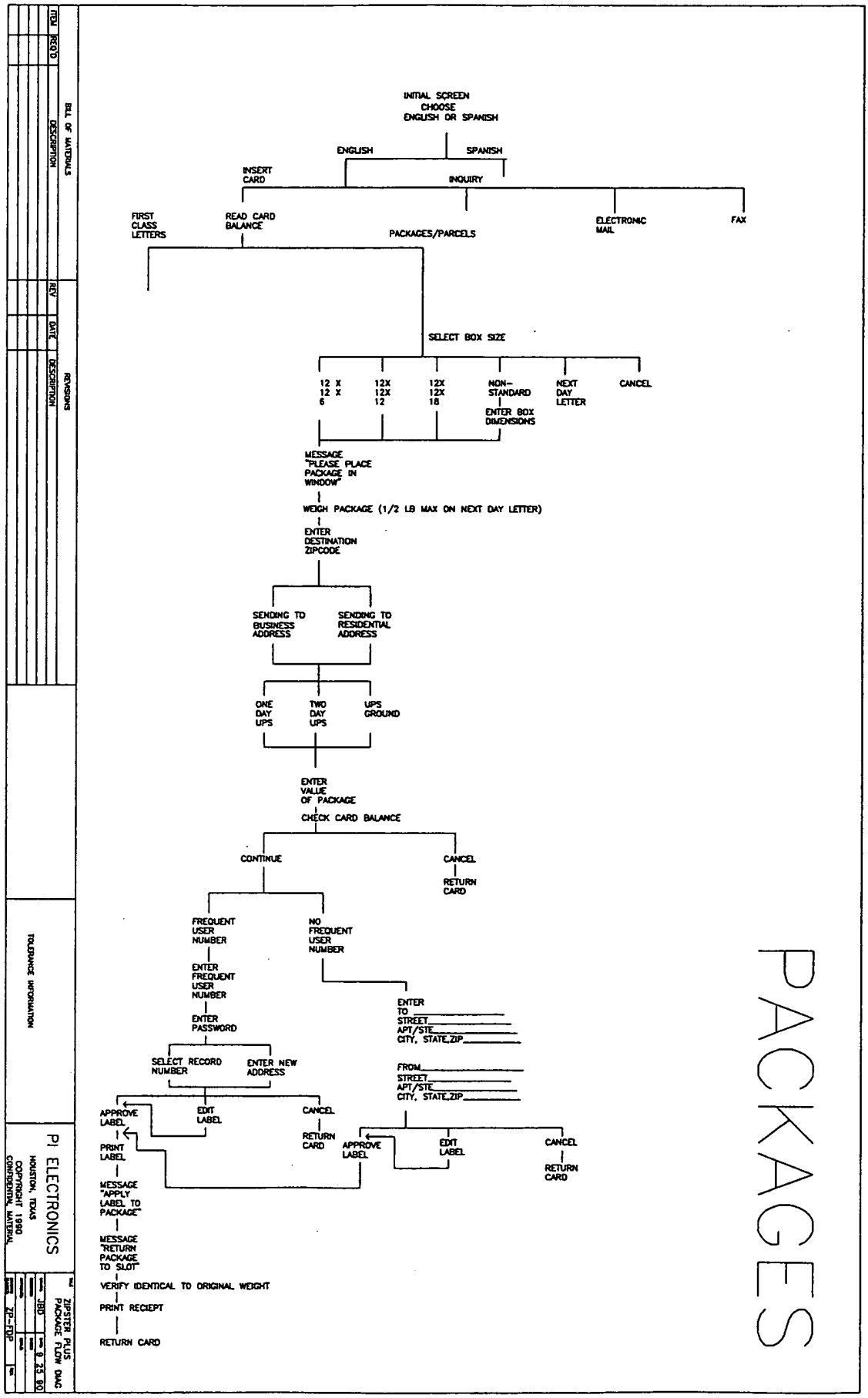


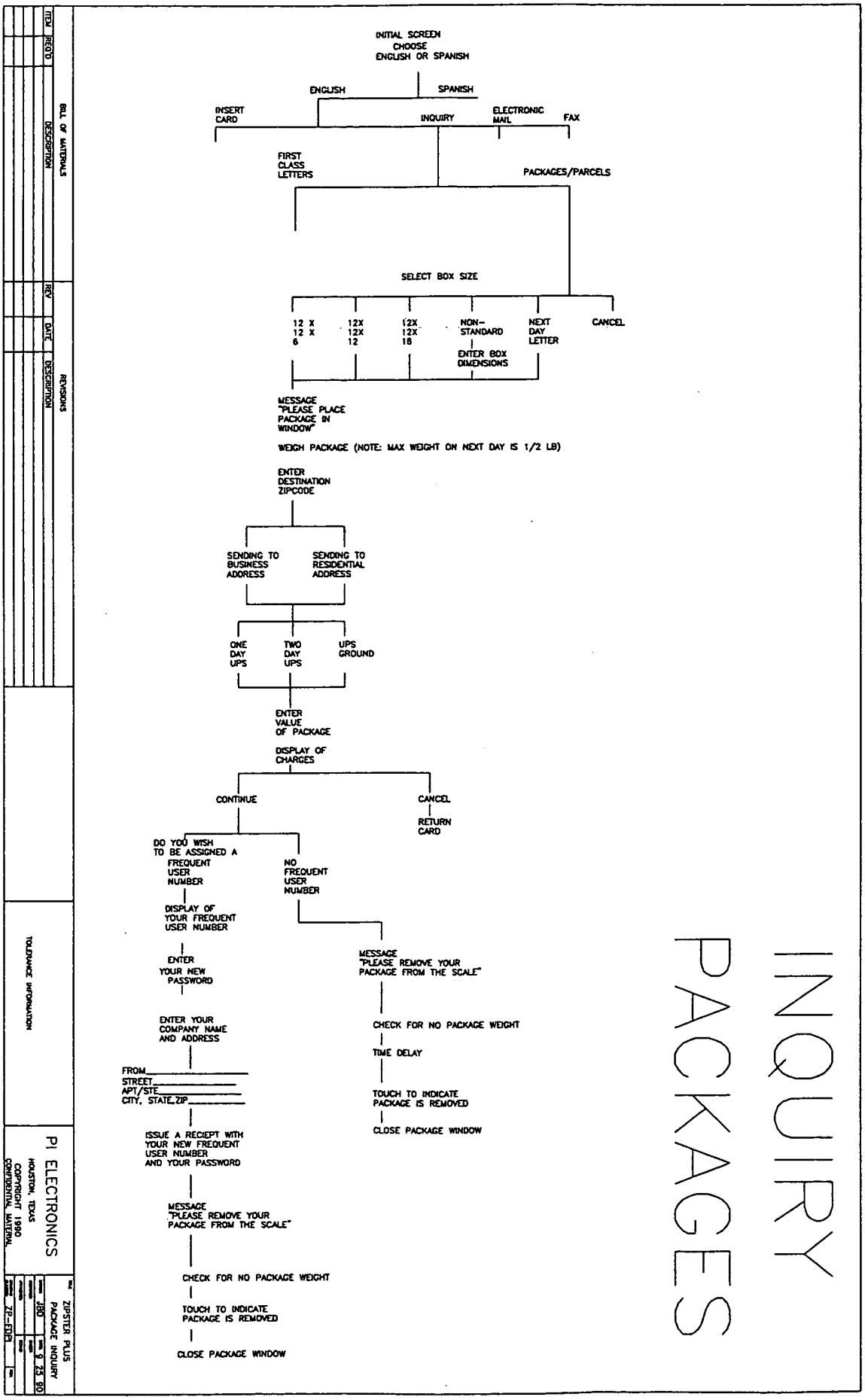
PLAN VIEW

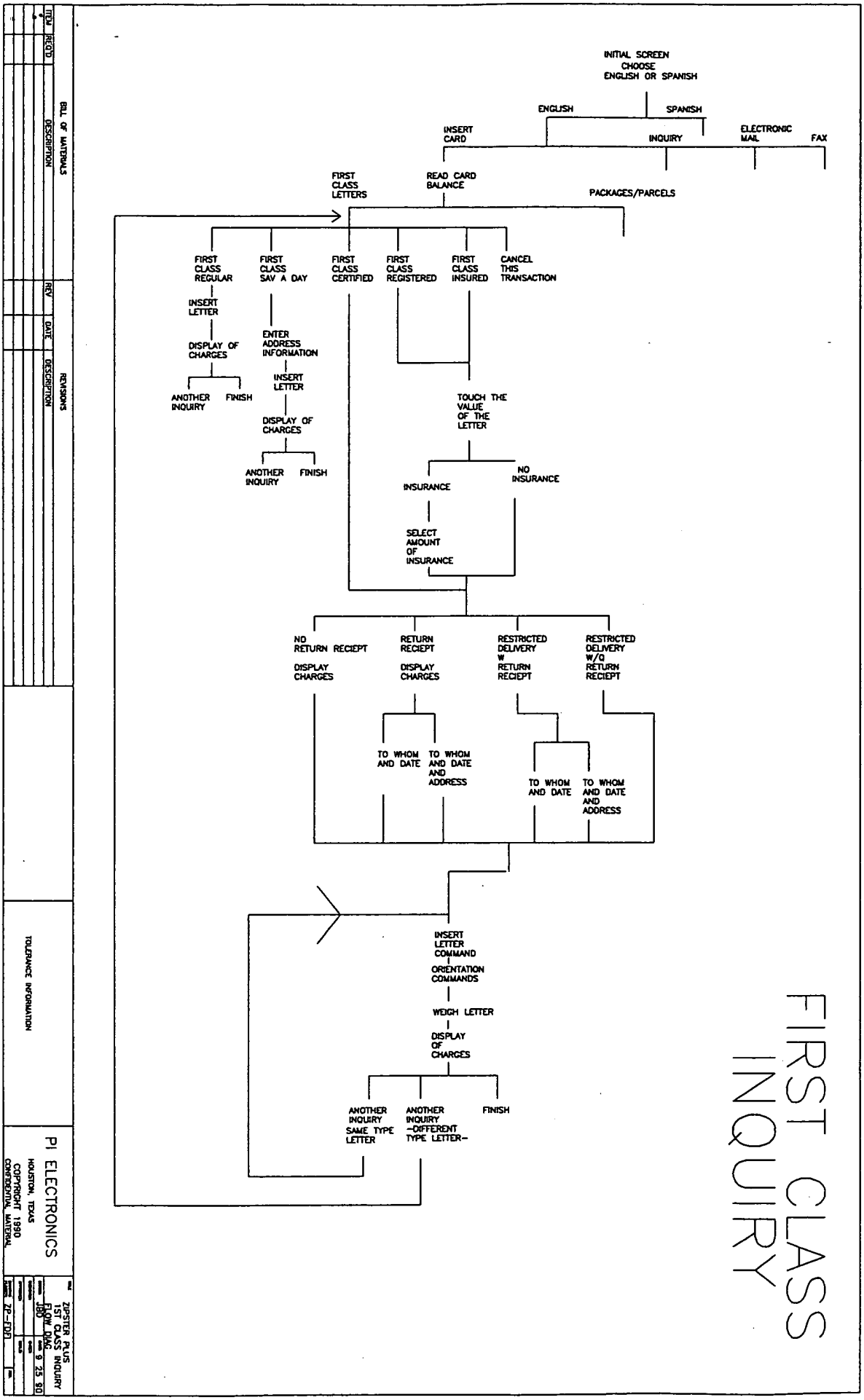
FIGURE 14

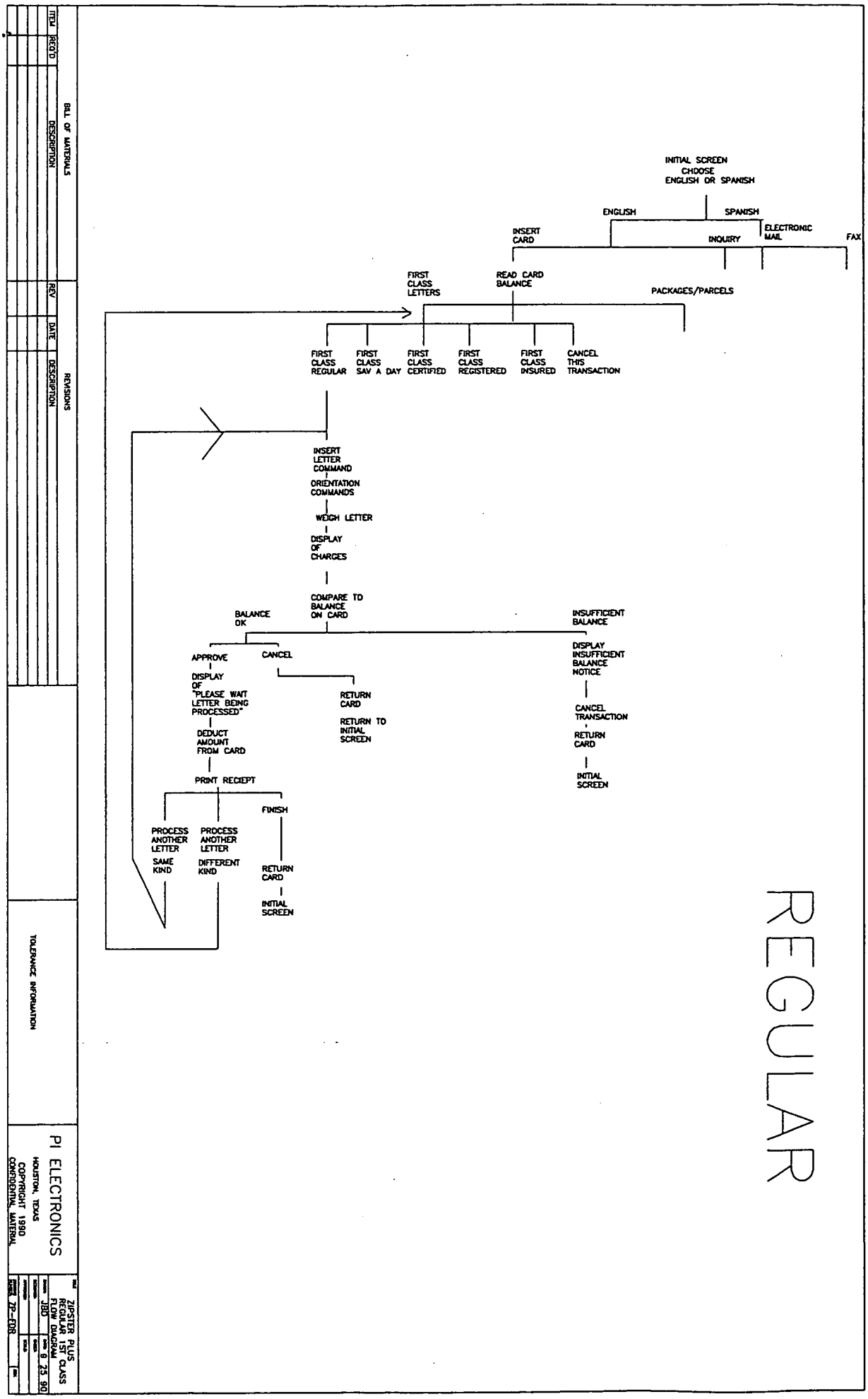

SSB IO & MOTORS
CLAMP MOTOR
WINDOW MOTOR
LENGTH BOARD
WIDTH BOARD
BANNER UNITS
RECEIVER 1
TRANSMITTER 1
RECEIVER 2
TRANSMITTER 2
HP PRINTER PAPER READY
RELAY
BUZZER
HOMING SENSORS
CLAMP
WINDOW
PACKAGE1
PACKAGE2
FLIP PLATE 1
FLIP PLATE 2
PWR
+5
+12
VCC
30VDC
FLIP PLATE
PACKAGE WINDOW
LETTER GATE
60VDC
CLAMP
120VAC
SPARE1
SPARE2
120VAC
SAFETY SWITCH
PACKAGE DUMP
SSR DC
SSR AC
FUSE
LED
IN4004
74HC14
REF PISD FILE
PI ELECTRONICS CORPORATION
HOUSTON, TEXAS
SIGNAL DISTRIBUTION BOARD
October 24, 1998


INITIAL SCREEN
CHOOSE
ENGLISH OR SPANISH
ENGLISH
SPANISH
INSERT
CARD
INQUIRY
ELECTRONIC
MAIL
FAX
MANIFEST OPTION
(SELECTED BY
OPERATOR OPENING
DOOR AND TOUCHING
SCREEN W TWO
FINGERS AT THE
SAME TIME)
PRINT
CURRENT
MANIFEST
PRINT
PREVIOUS
MANIFEST
SEARCH FOR
A SHIPMENT
EXIT TO
ZIPSTER
PLUS
PRINTER
PRINTS
1 UPS SHIPPING
MANIFEST
2 UPS SHIPPING
MANIFEST SUMMARY
3 FIRM MAILING BILL
FOR CERTIFIED
MAIL
4 FIRM MAILING BILL
FOR REGISTERED MAIL
5 FIRM MAILING BILL
FOR INSURED MAIL
ENTER
PREVIOUS
DATE
PRINTER
PRINTS
PREVIOUS
MANIFEST
ENTER
PACKAGE
ID
NUMBER
DISLAY
OF ALL
INFORMATION
ON THIS
PACKAGE
MANIFEST
ITEM
REQ'D
BILL OF MATERIALS
DESCRIPTION
REV
DATE
DESCRIPTION
REVISIONS
TOLERANCE INFORMATION
PI ELECTRONICS
HOUSTON, TEXAS
COPYRIGHT 1990
CONFIDENTIAL MATERIAL
ZIPSTER PLUS
MANIFEST FLOW DIAG
JBD
9 25 90
JBD
ZIP-PM


INITIAL SCREEN
CHOOSE
ENGLISH OR SPANISH
ENGLISH
SPANISH
INSERT CARD
INQUIRY
FIRST CLASS LETTERS
READ CARD BALANCE
PACKAGES/PARCELS
ELECTRONIC MAIL
FAX
SELECT BOX SIZE
12 X 12 X 6
12X 12X 12
12X 12X 18
NON-STANDARD
ENTER BOX DIMENSIONS
NEXT DAY LETTER
CANCEL
MESSAGE "PLEASE PLACE PACKAGE IN WINDOW"
WEIGH PACKAGE (1/2 LB MAX ON NEXT DAY LETTER)
ENTER DESTINATION ZIPCODE
SENDING TO BUSINESS ADDRESS
SENDING TO RESIDENTIAL ADDRESS
ONE DAY UPS
TWO DAY UPS
UPS GROUND
ENTER VALUE OF PACKAGE
CHECK CARD BALANCE
CONTINUE
CANCEL
RETURN CARD
FREQUENT USER NUMBER
NO FREQUENT USER NUMBER
ENTER FREQUENT USER NUMBER
ENTER PASSWORD
SELECT RECORD NUMBER
ENTER NEW ADDRESS
ENTER
TO
STREET
APT/STE
CITY, STATE,ZIP
FROM
STREET
APT/STE
CITY, STATE,ZIP
APPROVE LABEL
EDIT LABEL
CANCEL
RETURN CARD
PRINT LABEL
MESSAGE "APPLY LABEL TO PACKAGE"
MESSAGE "RETURN PACKAGE TO SLOT"
VERIFY IDENTICAL TO ORIGINAL WEIGHT
PRINT RECIEPT
RETURN CARD
PACKAGES
BILL OF MATERIALS
ITEM
REQ'D
DESCRIPTION
REVISIONS
REV
DATE
DESCRIPTION
TOLERANCE INFORMATION
PI ELECTRONICS
HOUSTON, TEXAS
COPYRIGHT 1990
CONFIDENTIAL MATERIAL
ZIPSTER PLUS
PACKAGE FLOW DIAG
JBD
8 23 90
ZP-FLOW


INITIAL SCREEN
CHOOSE
ENGLISH OR SPANISH
ENGLISH
SPANISH
INSERT CARD
INQUIRY
ELECTRONIC MAIL
FAX
FIRST CLASS LETTERS
PACKAGES/PARCELS
SELECT BOX SIZE
12 X 12 X 6
12X 12X 12
12X 12X 18
NON-STANDARD
NEXT DAY LETTER
CANCEL
ENTER BOX DIMENSIONS
MESSAGE "PLEASE PLACE PACKAGE IN WINDOW"
WEIGH PACKAGE (NOTE: MAX WEIGHT ON NEXT DAY IS 1/2 LB)
ENTER DESTINATION ZIPCODE
SENDING TO BUSINESS ADDRESS
SENDING TO RESIDENTIAL ADDRESS
ONE DAY UPS
TWO DAY UPS
UPS GROUND
ENTER VALUE OF PACKAGE
DISPLAY OF CHARGES
CONTINUE
CANCEL
RETURN CARD
DO YOU WISH TO BE ASSIGNED A FREQUENT USER NUMBER
NO FREQUENT USER NUMBER
DISPLAY OF YOUR FREQUENT USER NUMBER
ENTER YOUR NEW PASSWORD
ENTER YOUR COMPANY NAME AND ADDRESS
FROM
STREET
APT/STE
CITY, STATE, ZIP
ISSUE A RECIEPT WITH YOUR NEW FREQUENT USER NUMBER AND YOUR PASSWORD
MESSAGE "PLEASE REMOVE YOUR PACKAGE FROM THE SCALE"
CHECK FOR NO PACKAGE WEIGHT
TOUCH TO INDICATE PACKAGE IS REMOVED
CLOSE PACKAGE WINDOW
MESSAGE "PLEASE REMOVE YOUR PACKAGE FROM THE SCALE"
CHECK FOR NO PACKAGE WEIGHT
TIME DELAY
TOUCH TO INDICATE PACKAGE IS REMOVED
CLOSE PACKAGE WINDOW
INQUIRY PACKAGES
BILL OF MATERIALS
ITEM
REQ'D
DESCRIPTION
REVISIONS
REV
DATE
DESCRIPTION
TOLERANCE INFORMATION
PI ELECTRONICS
HOUSTON, TEXAS
COPYRIGHT 1990
CONFIDENTIAL MATERIAL
ZIPSTER PLUS
PACKAGE INQUIRY
JBO
9 25 90
ZP-FDR


INITIAL SCREEN
CHOOSE
ENGLISH OR SPANISH
ENGLISH
SPANISH
INSERT
CARD
INQUIRY
ELECTRONIC
MAIL
FAX
FIRST
CLASS
LETTERS
READ CARD
BALANCE
PACKAGES/PARCELS
FIRST
CLASS
REGULAR
FIRST
CLASS
SAV A DAY
FIRST
CLASS
CERTIFIED
FIRST
CLASS
REGISTERED
FIRST
CLASS
INSURED
CANCEL
THIS
TRANSACTION
INSERT
LETTER
DISPLAY OF
CHARGES
ANOTHER
INQUIRY
FINISH
ENTER
ADDRESS
INFORMATION
INSERT
LETTER
DISPLAY OF
CHARGES
ANOTHER
INQUIRY
FINISH
TOUCH THE
VALUE
OF THE
LETTER
INSURANCE
NO
INSURANCE
SELECT
AMOUNT
OF
INSURANCE
NO
RETURN RECIEPT
DISPLAY
CHARGES
RETURN
RECIEPT
DISPLAY
CHARGES
RESTRICTED
DELIVERY
W
RETURN
RECIEPT
RESTRICTED
DELIVERY
W/O
RETURN
RECIEPT
TO WHOM
AND DATE
TO WHOM
AND DATE
AND
ADDRESS
TO WHOM
AND DATE
TO WHOM
AND DATE
AND
ADDRESS
INSERT
LETTER
COMMAND
ORIENTATION
COMMANDS
WEIGH LETTER
DISPLAY
OF
CHARGES
ANOTHER
INQUIRY
SAME TYPE
LETTER
ANOTHER
INQUIRY
-DIFFERENT
TYPE LETTER-
FINISH
FIRST CLASS
INQUIRY


INITIAL SCREEN
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SPANISH
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ELECTRONIC
MAIL
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READ CARD
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REGISTERED
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CANCEL
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TRANSACTION
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COMMAND
ORIENTATION
COMMANDS
WEIGH LETTER
DISPLAY
OF
CHARGES
COMPARE TO
BALANCE
ON CARD
BALANCE
OK
INSUFFICIENT
BALANCE
APPROVE
CANCEL
DISPLAY
OF
"PLEASE WAIT
LETTER BEING
PROCESSED"
RETURN
CARD
RETURN TO
INITIAL
SCREEN
DISPLAY
INSUFFICIENT
BALANCE
NOTICE
CANCEL
TRANSACTION
RETURN
CARD
INITIAL
SCREEN
DEDUCT
AMOUNT
FROM CARD
PRINT RECIEPT
FINISH
PROCESS
ANOTHER
LETTER
SAME
KIND
PROCESS
ANOTHER
LETTER
DIFFERENT
KIND
RETURN
CARD
INITIAL
SCREEN
REGULAR
BILL OF MATERIALS
ITEM
REQ'D
DESCRIPTION
REV
DATE
DESCRIPTION
REVISIONS
TOLERANCE INFORMATION
PI ELECTRONICS
HOUSTON, TEXAS
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ZIPSTER PLUS
REGULAR 1ST CLASS
FLOW DIAGRAM
JBD
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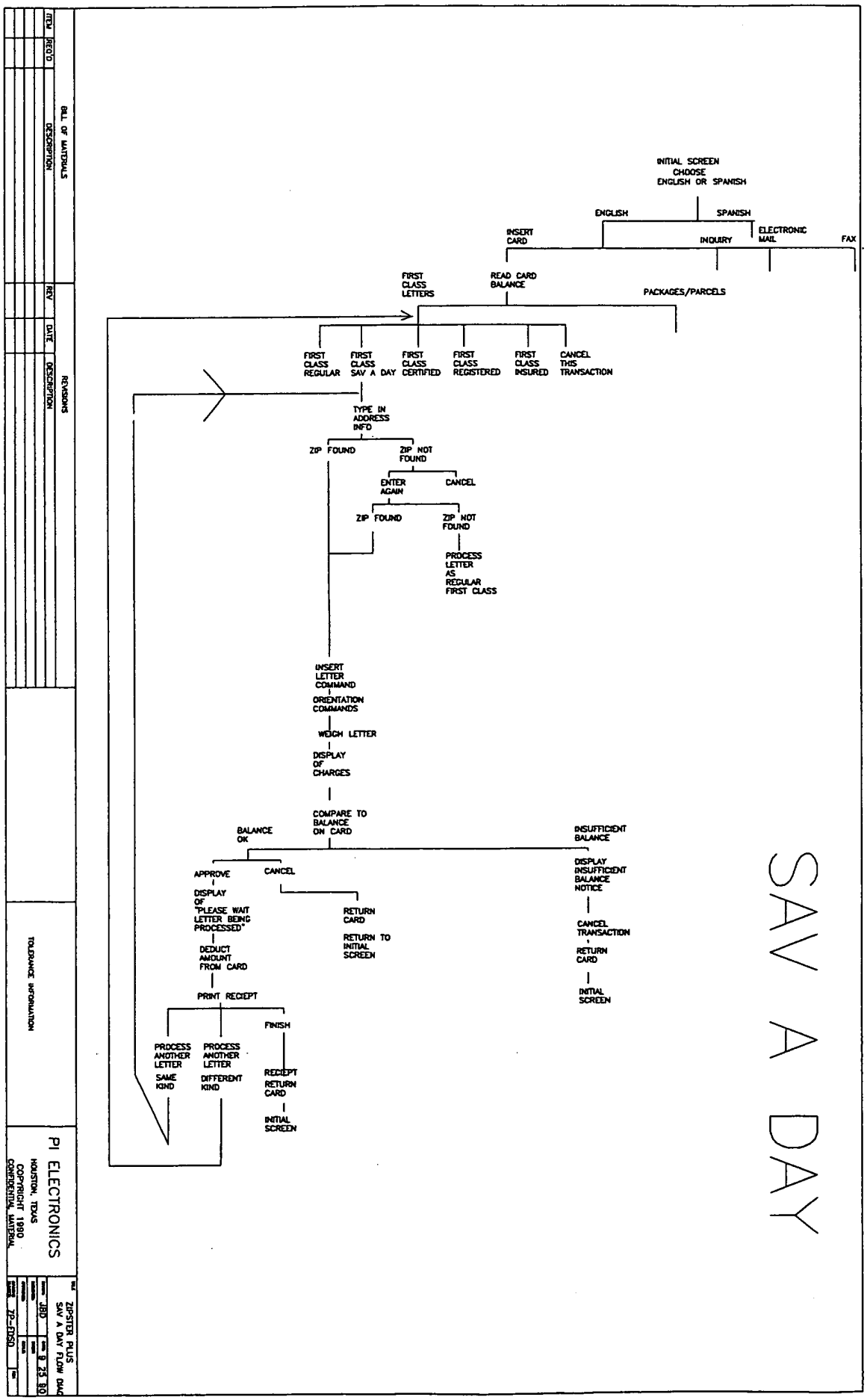
ZP-FDR


INITIAL SCREEN
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ENGLISH
SPANISH
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CARD
INQUIRY
ELECTRONIC
MAIL
FAX
FIRST
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READ CARD
BALANCE
PACKAGES/PARCELS
FIRST
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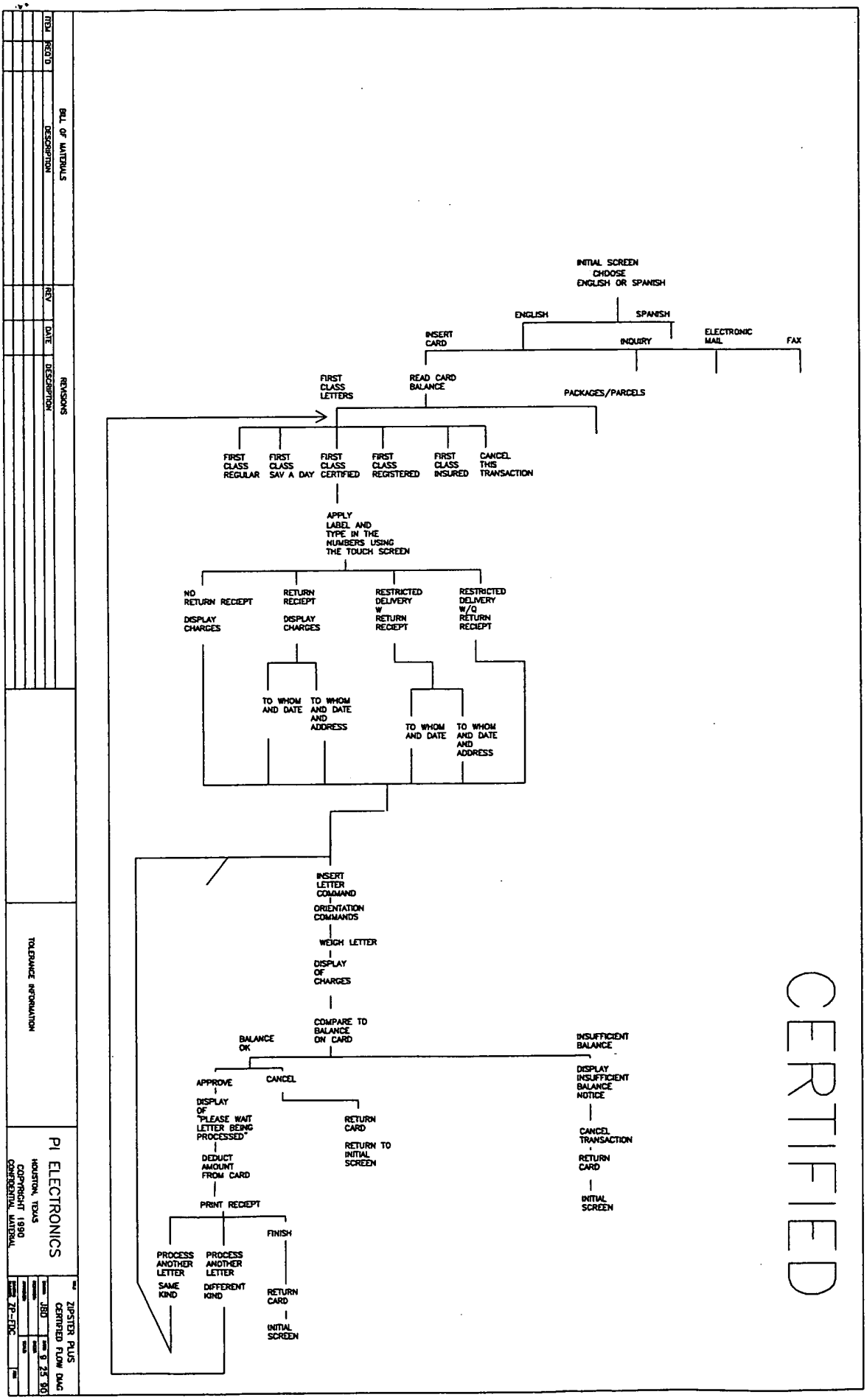
CERTIFIED
FIRST
CLASS
REGISTERED
FIRST
CLASS
INSURED
CANCEL
THIS
TRANSACTION
TYPE IN
ADDRESS
INFO
ZIP FOUND
ZIP NOT
FOUND
ENTER
AGAIN
CANCEL
ZIP FOUND
ZIP NOT
FOUND
PROCESS
LETTER
AS
REGULAR
FIRST CLASS
INSERT
LETTER
COMMAND
ORIENTATION
COMMANDS
WEIGH LETTER
DISPLAY
OF
CHARGES
COMPARE TO
BALANCE
ON CARD
BALANCE
OK
INSUFFICIENT
BALANCE
APPROVE
CANCEL
DISPLAY
INSUFFICIENT
BALANCE
NOTICE
DISPLAY
OF
"PLEASE WAIT
LETTER BEING
PROCESSED"
RETURN
CARD
RETURN TO
INITIAL
SCREEN
CANCEL
TRANSACTION
+
RETURN
CARD
DEDUCT
AMOUNT
FROM CARD
INITIAL
SCREEN
PRINT RECIEPT
FINISH
PROCESS
ANOTHER
LETTER
SAME
KIND
PROCESS
ANOTHER
LETTER
DIFFERENT
KIND
RECIEPT
RETURN
CARD
INITIAL
SCREEN
SAV A DAY
BILL OF MATERIALS
ITEM
QTY
DESCRIPTION
REVISIONS
REV
DATE
DESCRIPTION
TOLERANCE INFORMATION
PI ELECTRONICS
HOUSTON, TEXAS
COPYRIGHT 1990
CONFIDENTIAL MATERIAL
ZIPSTER PLUS
SAV A DAY FLOW DIAG
JBD
9 25 90
777-0050


INITIAL SCREEN
CHOOSE
ENGLISH OR SPANISH
ENGLISH
SPANISH
INSERT CARD
INQUIRY
ELECTRONIC MAIL
FAX
READ CARD BALANCE
FIRST CLASS LETTERS
PACKAGES/PARCELS
FIRST CLASS REGULAR
FIRST CLASS SAV A DAY
FIRST CLASS CERTIFIED
FIRST CLASS REGISTERED
FIRST CLASS INSURED
CANCEL THIS TRANSACTION
APPLY LABEL AND TYPE IN THE NUMBERS USING THE TOUCH SCREEN
NO RETURN RECIEPT
DISPLAY CHARGES
RETURN RECIEPT
DISPLAY CHARGES
RESTRICTED DELIVERY W RETURN RECIEPT
RESTRICTED DELIVERY W/O RETURN RECIEPT
TO WHOM AND DATE
TO WHOM AND DATE AND ADDRESS
TO WHOM AND DATE
TO WHOM AND DATE AND ADDRESS
INSERT LETTER COMMAND
ORIENTATION COMMANDS
WEIGH LETTER
DISPLAY OF CHARGES
COMPARE TO BALANCE ON CARD
BALANCE OK
INSUFFICIENT BALANCE
APPROVE
CANCEL
DISPLAY OF "PLEASE WAIT LETTER BEING PROCESSED"
RETURN CARD
RETURN TO INITIAL SCREEN
DEDUCT AMOUNT FROM CARD
PRINT RECIEPT
FINISH
PROCESS ANOTHER LETTER SAME KIND
PROCESS ANOTHER LETTER DIFFERENT KIND
RETURN CARD
INITIAL SCREEN
DISPLAY INSUFFICIENT BALANCE NOTICE
CANCEL TRANSACTION
RETURN CARD
INITIAL SCREEN
CERTIFIED
BILL OF MATERIALS
ITEM
REQ'D
DESCRIPTION
REVISIONS
REV
DATE
DESCRIPTION
TOLERANCE INFORMATION
PI ELECTRONICS
HOUSTON, TEXAS
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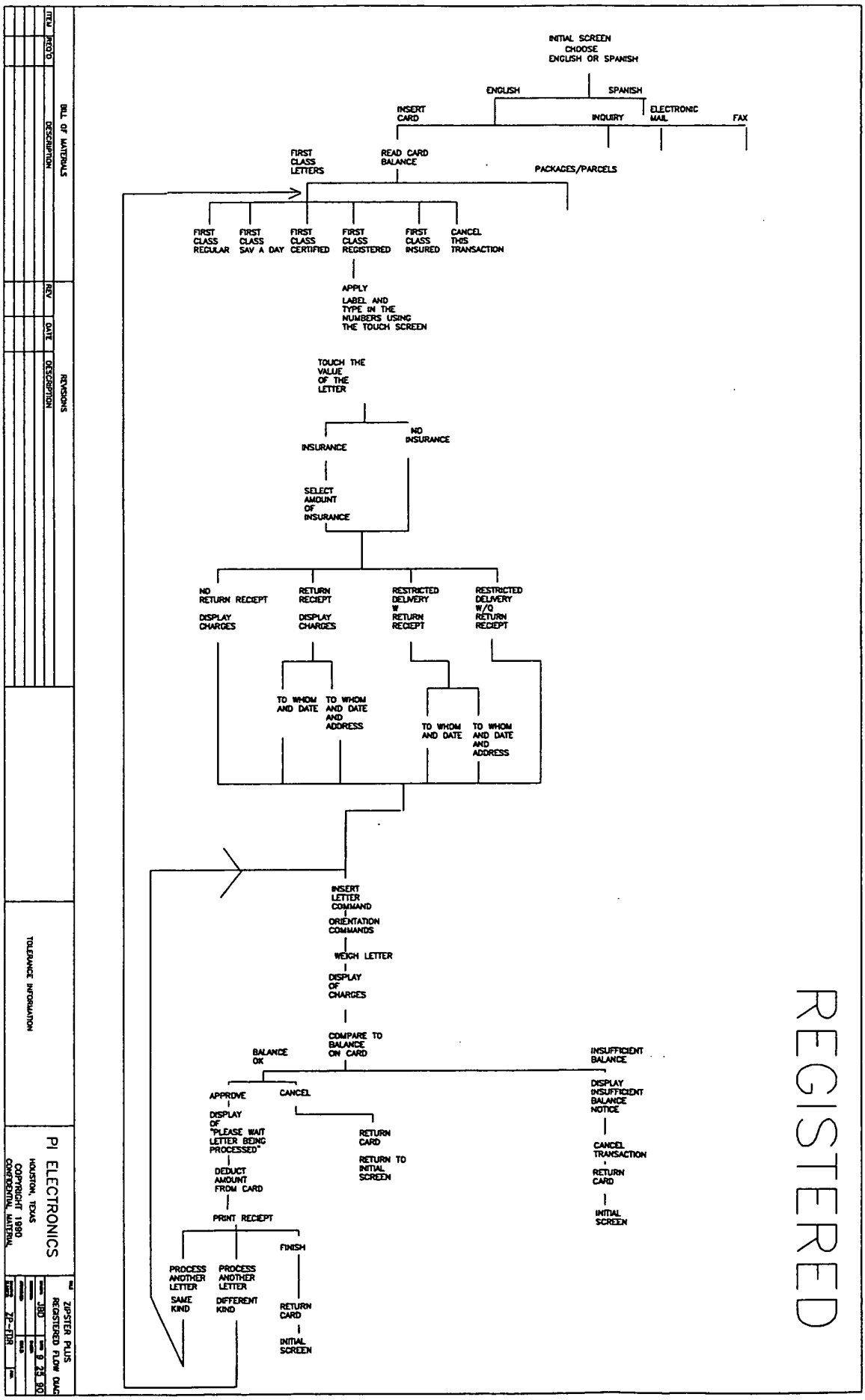
CONFIDENTIAL MATERIAL
ZIPSTER PLUS
CERTIFIED FLOW DIAG
JBD
9 25 90
ZP-FDC


INITIAL SCREEN
CHOOSE
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ENGLISH
SPANISH
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INQUIRY
ELECTRONIC
MAIL
FAX
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PACKAGES/PARCELS
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SAV A DAY
FIRST
CLASS
CERTIFIED
FIRST
CLASS
REGISTERED
FIRST
CLASS
INSURED
CANCEL
THIS
TRANSACTION
APPLY
LABEL AND
TYPE IN THE
NUMBERS USING
THE TOUCH SCREEN
TOUCH THE
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OF THE
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AMOUNT
OF
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CHARGES
RETURN
RECIEPT
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CHARGES
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DELIVERY
W
RETURN
RECIEPT
RESTRICTED
DELIVERY
W/O
RETURN
RECIEPT
TO WHOM
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TO WHOM
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AND
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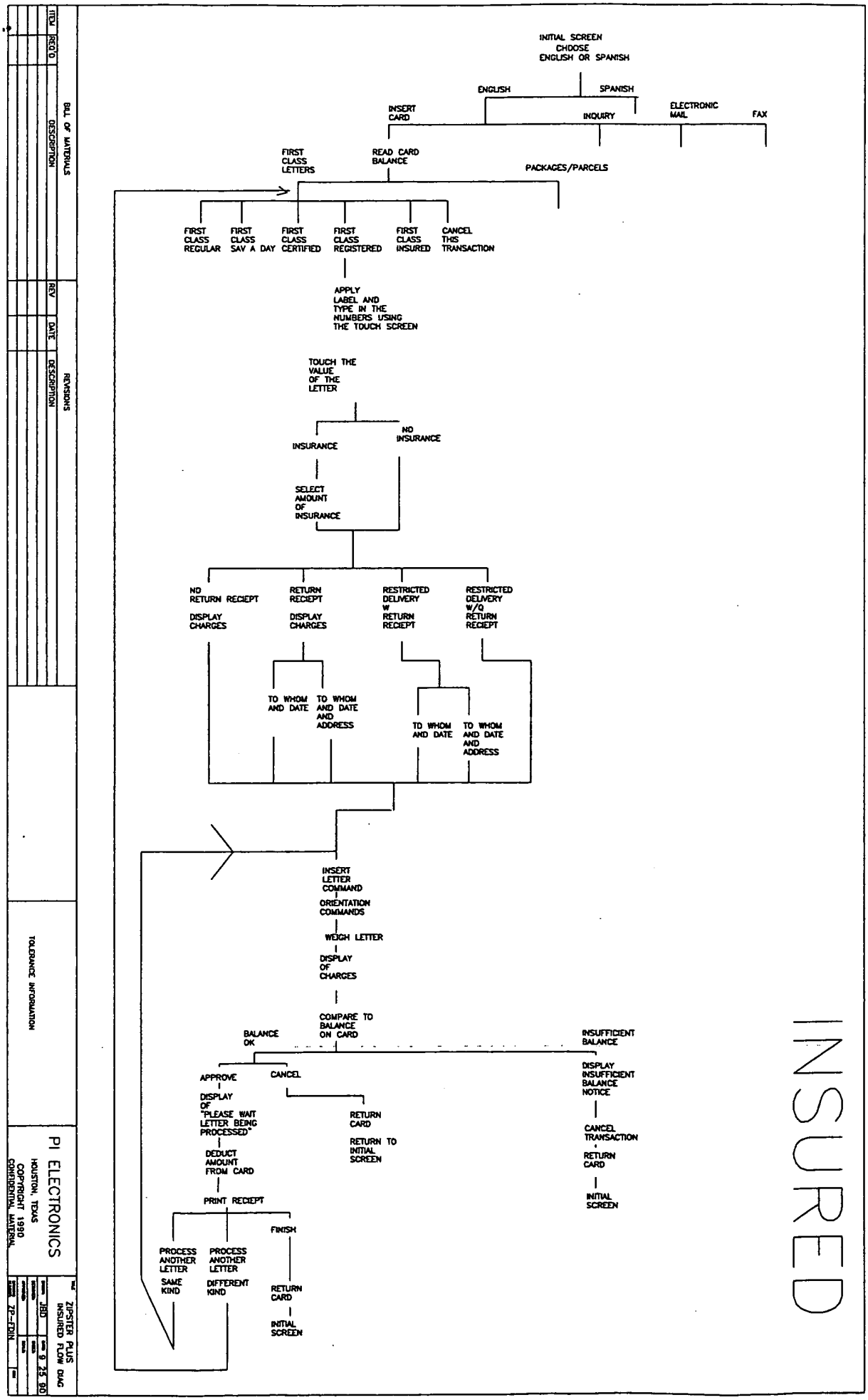
AND DATE
TO WHOM
AND DATE
AND
ADDRESS
INSERT
LETTER
COMMAND
ORIENTATION
COMMANDS
WEIGH LETTER
DISPLAY
OF
CHARGES
COMPARE TO
BALANCE
ON CARD
BALANCE
OK
INSUFFICIENT
BALANCE
APPROVE
CANCEL
DISPLAY
OF
"PLEASE WAIT
LETTER BEING
PROCESSED"
RETURN
CARD
RETURN TO
INITIAL
SCREEN
DISPLAY
INSUFFICIENT
BALANCE
NOTICE
CANCEL
TRANSACTION
RETURN
CARD
INITIAL
SCREEN
DEDUCT
AMOUNT
FROM CARD
PRINT RECIEPT
PROCESS
ANOTHER
LETTER
SAME
KIND
PROCESS
ANOTHER
LETTER
DIFFERENT
KIND
FINISH
RETURN
CARD
INITIAL
SCREEN
REGISTERED
BILL OF MATERIALS
ITEM
PROTO
DESCRIPTION
REVISIONS
REV
DATE
DESCRIPTION
TOLERANCE INFORMATION
PI ELECTRONICS
HOUSTON, TEXAS
COPYRIGHT 1990
CONFIDENTIAL MATERIAL
ZIPSTER PLUS
REGISTERED FLOW DIAG
JBD
9 25 90
ZP-FDR


INITIAL SCREEN
CHOOSE
ENGLISH OR SPANISH
ENGLISH
SPANISH
INSERT
CARD
INQUIRY
ELECTRONIC
MAIL
FAX
FIRST
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READ CARD
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PACKAGES/PARCELS
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SAV A DAY
FIRST
CLASS
CERTIFIED
FIRST
CLASS
REGISTERED
FIRST
CLASS
INSURED
CANCEL
THIS
TRANSACTION
APPLY
LABEL AND
TYPE IN THE
NUMBERS USING
THE TOUCH SCREEN
TOUCH THE
VALUE
OF THE
LETTER
INSURANCE
NO
INSURANCE
SELECT
AMOUNT
OF
INSURANCE
NO
RETURN RECIEPT
DISPLAY
CHARGES
RETURN
RECIEPT
DISPLAY
CHARGES
RESTRICTED
DELIVERY
W
RETURN
RECIEPT
RESTRICTED
DELIVERY
W/O
RETURN
RECIEPT
TO WHOM
AND DATE
TO WHOM
AND DATE
AND
ADDRESS
TO WHOM
AND DATE
TO WHOM
AND DATE
AND
ADDRESS
INSERT
LETTER
COMMAND
ORIENTATION
COMMANDS
WEIGH LETTER
DISPLAY
OF
CHARGES
COMPARE TO
BALANCE
ON CARD
BALANCE
OK
INSUFFICIENT
BALANCE
APPROVE
CANCEL
DISPLAY
OF
"PLEASE WAIT
LETTER BEING
PROCESSED"
RETURN
CARD
RETURN TO
INITIAL
SCREEN
DISPLAY
INSUFFICIENT
BALANCE
NOTICE
DEDUCT
AMOUNT
FROM CARD
CANCEL
TRANSACTION
+
RETURN
CARD
INITIAL
SCREEN
PRINT RECIEPT
FINISH
PROCESS
ANOTHER
LETTER
SAME
KIND
PROCESS
ANOTHER
LETTER
DIFFERENT
KIND
RETURN
CARD
INITIAL
SCREEN
INSURED
BILL OF MATERIALS
ITEM
REQ'D
DESCRIPTION
REVISIONS
REV
DATE
DESCRIPTION
TOLERANCE INFORMATION
PI ELECTRONICS
HOUSTON, TEXAS
COPYRIGHT 1990
CONFIDENTIAL MATERIAL
ZIPSTER PLUS
INSURED FLOW DIAG
JBD
9 25 90
ZP-FLOW

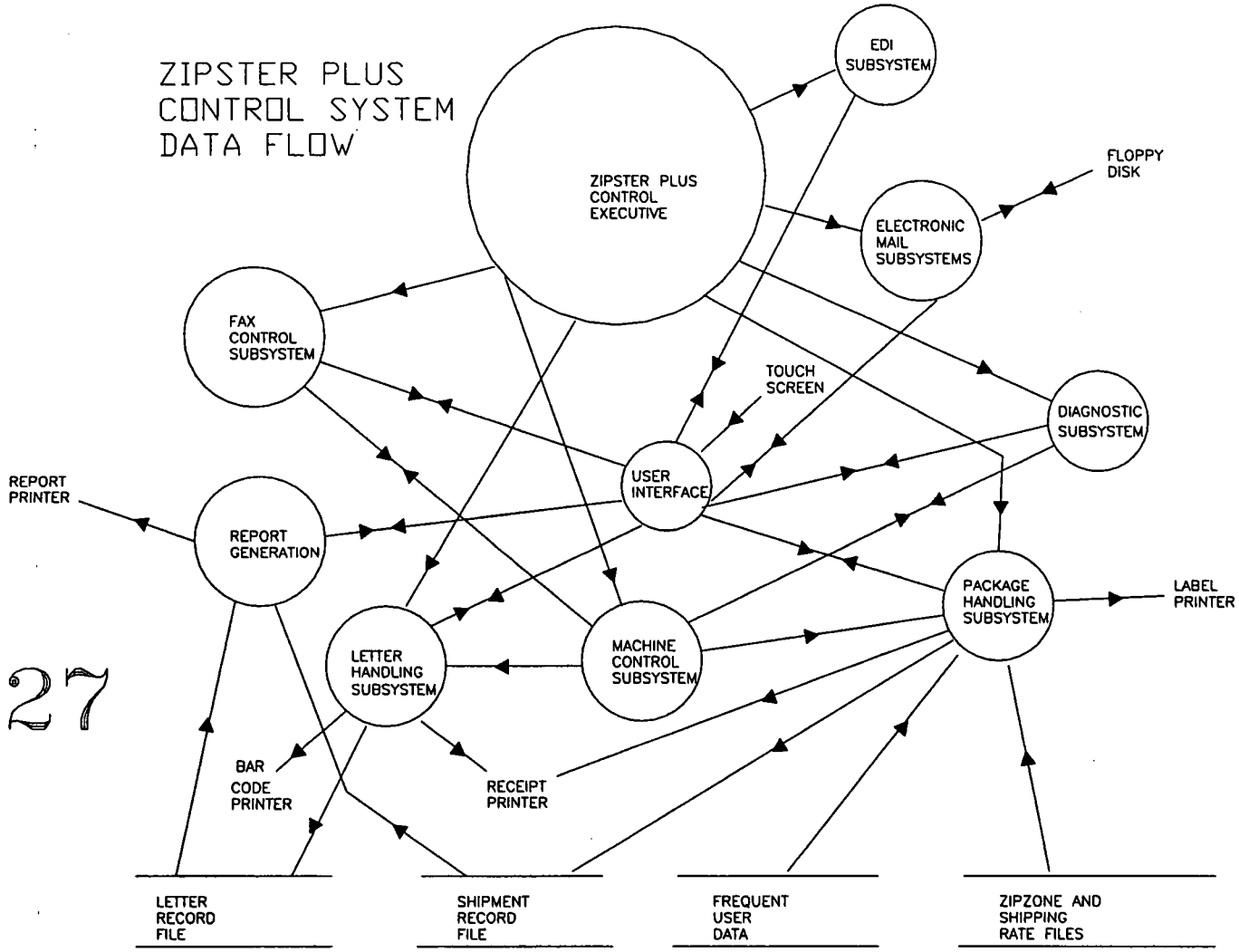
ZIPSTER PLUS
CONTROL SYSTEM
DATA FLOW
ZIPSTER PLUS
CONTROL
EXECUTIVE
EDI
SUBSYSTEM
FLOPPY
DISK
ELECTRONIC
MAIL
SUBSYSTEMS
FAX
CONTROL
SUBSYSTEM
TOUCH
SCREEN
DIAGNOSTIC
SUBSYSTEM
USER
INTERFACE
REPORT
PRINTER
REPORT
GENERATION
PACKAGE
HANDLING
SUBSYSTEM
LABEL
PRINTER
LETTER
HANDLING
SUBSYSTEM
MACHINE
CONTROL
SUBSYSTEM
BAR
CODE
PRINTER
RECEIPT
PRINTER
LETTER
RECORD
FILE
SHIPMENT
RECORD
FILE
FREQUENT
USER
DATA
ZIPZONE AND
SHIPPING
RATE FILES

FIGURE 27

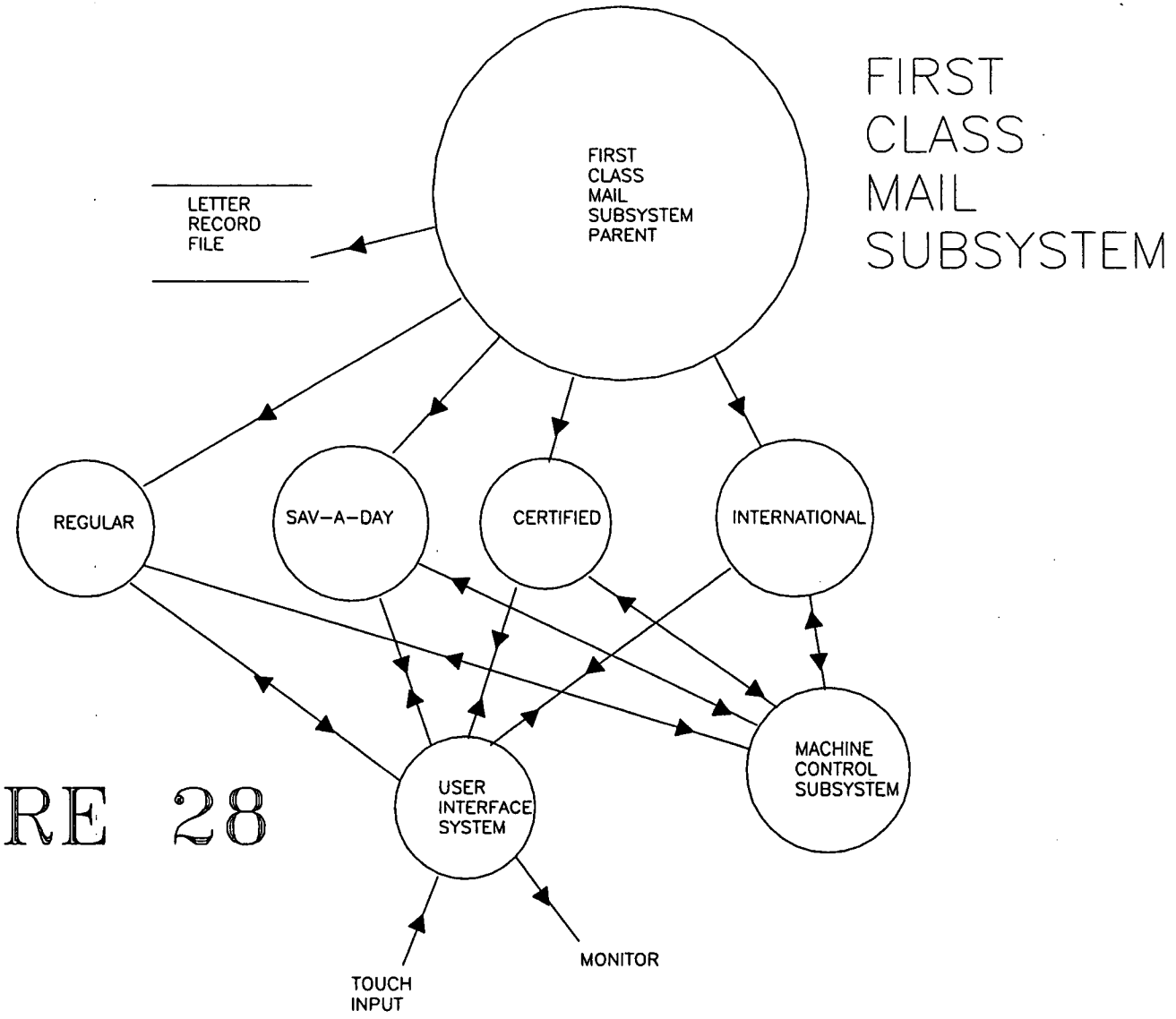
FIRST
CLASS
MAIL
SUBSYSTEM
FIRST
CLASS
MAIL
SUBSYSTEM
PARENT
LETTER
RECORD
FILE
REGULAR
SAV–A–DAY
CERTIFIED
INTERNATIONAL
MACHINE
CONTROL
SUBSYSTEM
USER
INTERFACE
SYSTEM
TOUCH
INPUT
MONITOR

FIGURE 28

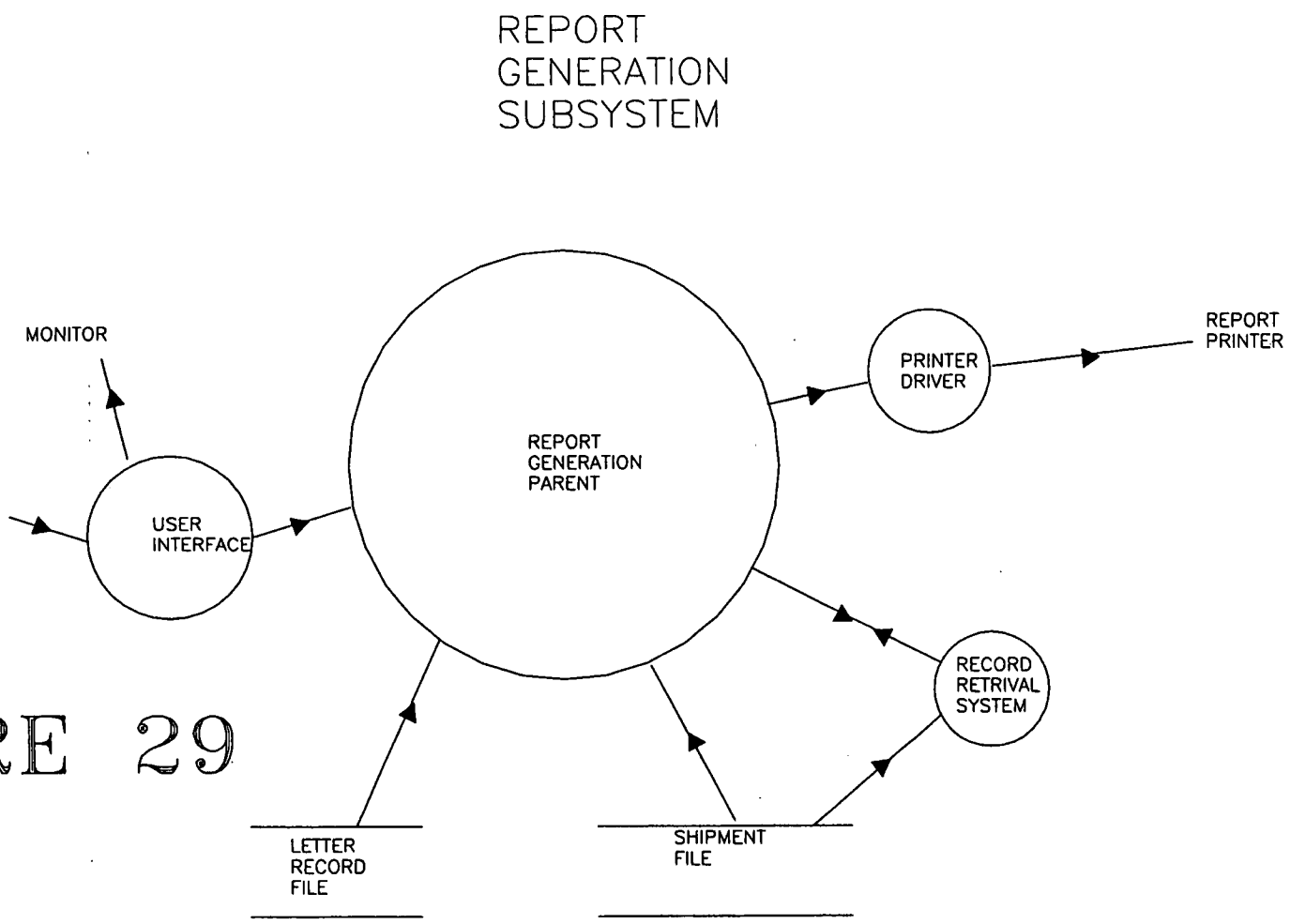
REPORT
GENERATION
SUBSYSTEM
MONITOR
USER
INTERFACE
REPORT
GENERATION
PARENT
PRINTER
DRIVER
REPORT
PRINTER
RECORD
RETRIVAL
SYSTEM
LETTER
RECORD
FILE
SHIPMENT
FILE

FIGURE 29

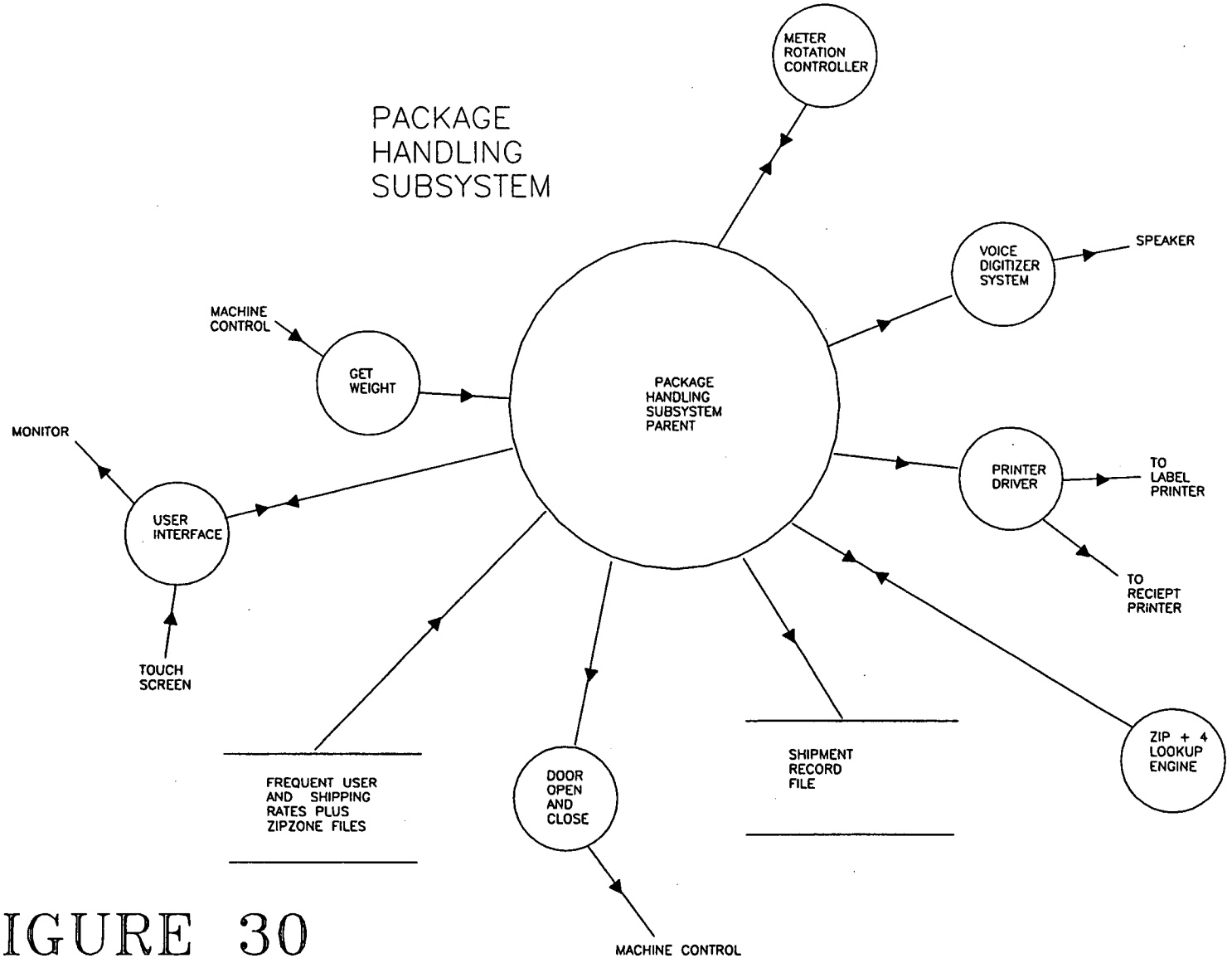
PACKAGE
HANDLING
SUBSYSTEM
METER
ROTATION
CONTROLLER
VOICE
DIGITIZER
SYSTEM
SPEAKER
MACHINE
CONTROL
GET
WEIGHT
PACKAGE
HANDLING
SUBSYSTEM
PARENT
MONITOR
USER
INTERFACE
PRINTER
DRIVER
TO
LABEL
PRINTER
TO
RECIEPT
PRINTER
TOUCH
SCREEN
FREQUENT USER
AND SHIPPING
RATES PLUS
ZIPZONE FILES
DOOR
OPEN
AND
CLOSE
SHIPMENT
RECORD
FILE
ZIP + 4
LOOKUP
ENGINE
MACHINE CONTROL

FIGURE 30

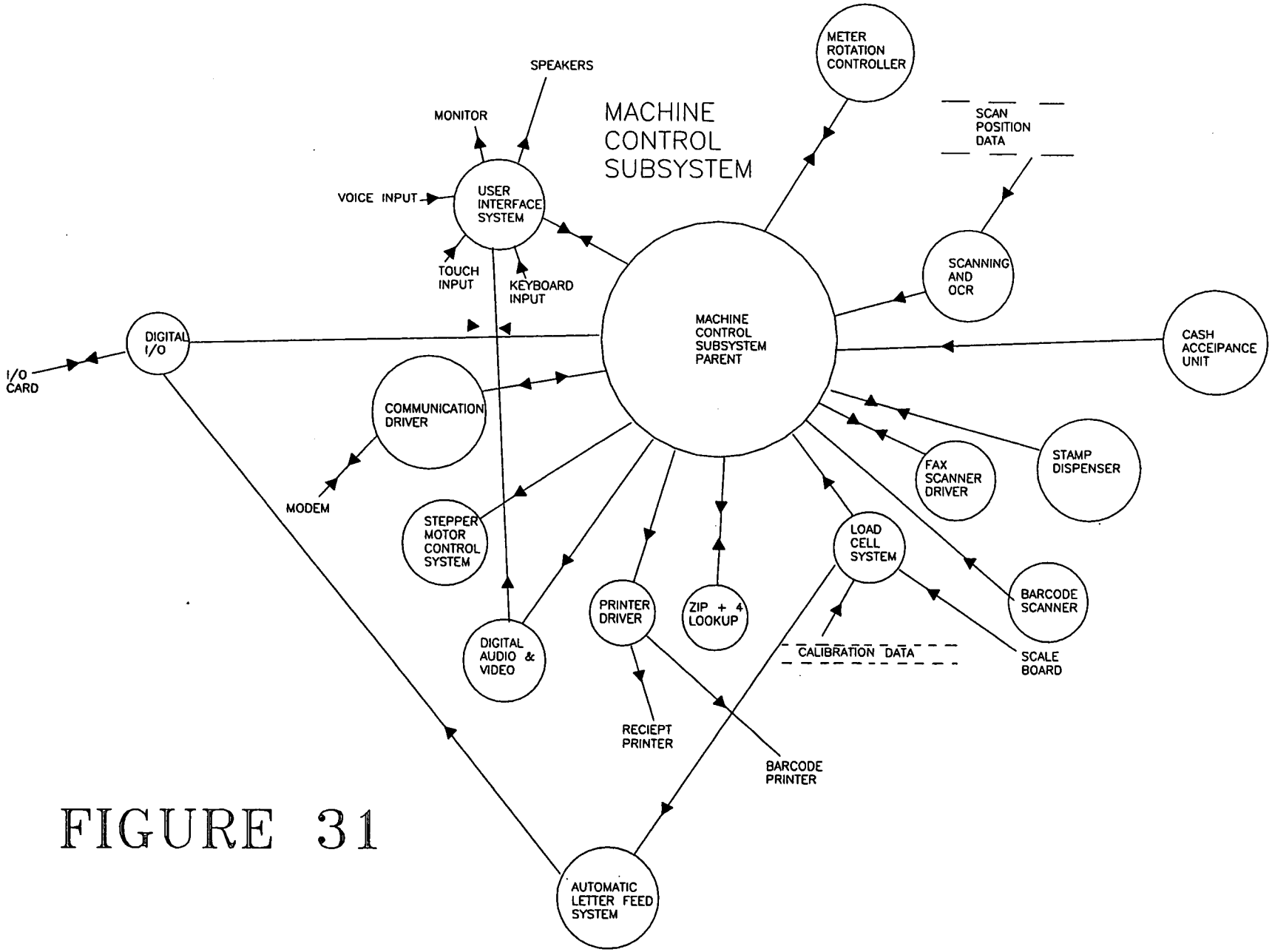
MACHINE CONTROL SUBSYSTEM
METER ROTATION CONTROLLER
SPEAKERS
MONITOR
USER INTERFACE SYSTEM
VOICE INPUT
TOUCH INPUT
KEYBOARD INPUT
SCAN POSITION DATA
SCANNING AND OCR
MACHINE CONTROL SUBSYSTEM PARENT
CASH ACCEIPANCE UNIT
DIGITAL I/O
I/O CARD
COMMUNICATION DRIVER
MODEM
STEPPER MOTOR CONTROL SYSTEM
DIGITAL AUDIO & VIDEO
PRINTER DRIVER
ZIP + 4 LOOKUP
RECIEPT PRINTER
BARCODE PRINTER
LOAD CELL SYSTEM
CALIBRATION DATA
FAX SCANNER DRIVER
STAMP DISPENSER
BARCODE SCANNER
SCALE BOARD
AUTOMATIC LETTER FEED SYSTEM

FIGURE 31